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U.S. AND RUSSIAN COOPERATION AGAINST NUCLEAR PROLIFERATION

by

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September 2004

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Iran may have a nuclear weapon soon if Washington and Moscow do not unite to slow its efforts. The collapse of the Soviet Union created new complications in a long tradition of nonproliferation cooperation between the United States and Russia, and Iran is just one example. In the 1960s, faced with a common nuclear threat of China, Washington and Moscow united to negotiate the Limited Test Ban Treaty and Nuclear Nonproliferation Treaty to prevent China and other nuclear aspirants from proliferating nuclear weapons. They shepherded their allies to the nonproliferation table and made them sign the treaties. Their efforts retarded nuclear proliferation but failed to prevent China, India, and Pakistan, from gaining nuclear weapons. Following the Cold War their cooperative relationship changed as Washington began treating Moscow as an unequal partner and their nonproliferation efforts broke down into a cooperative and uncooperative mix. This mix has reduced the effectiveness of their efforts and may accelerate proliferation. The September 11th terrorist attacks put more attention on the nuclear proliferation threat to the international community. If this threat is to be minimized, Washington and Moscow need to work together, as they did against China, to prevent new nuclear powers from emerging.

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U.S. AND RUSSIAN COOPERATION AGAINST NUCLEAR PROLIFERATION

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ABSTRACT

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I would like to thank my wife for supporting me in all my efforts. Without her I would not be where I am today. I would also like to thank my two sons who pounded at the computer room door day-after-day to remind that there are more important things in life than homework.

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I. INTRODUCTION

A. INTRODUCTION

In a blinding flash of light and intense searing heat, hundreds of thousands of Americans are instantly killed as a nuclear device, stolen from the former Soviet Union, vaporizes a U.S. city. Scenarios like this with such high consequences were dismissed prior to September 11 because the probabilities of their occurrences were considered too low.[1] This all changed following the 9/11 terrorists' attacks as fears of nuclear terrorism jumped in the United States and U.S. leadership focused greater attention on the threat of global nuclear proliferation. The largest potential contributors to nuclear nonproliferation are the massive nuclear stockpiles left vulnerable to theft and smuggling following the Soviet Union's collapse. Nuclear theft from these stockpiles is a reality; two dozen incidents have been reported by Russia,[2] but fortunately the amounts stolen have not been large enough to produce a nuclear weapon, and most of it has been recovered. Washington and Moscow mutually fear nuclear proliferation, yet their efforts to prevent it have varied since the advent of nuclear weapons. This thesis assesses why the United States and Russia, following the end of the Cold War, sometimes cooperate on nuclear nonproliferation and other times do not.

I conduct a historical survey of U.S.-Soviet nonproliferation policies to identify why they have varied their cooperative effort in fighting the spread of nuclear weapons. I categorize the U.S.-Soviet nonproliferation efforts into three eras. The first era is the escalation of the Cold War, 1945 to 1962, when Washington and Moscow acted unilaterally and uncooperatively to prevent nuclear proliferation. The second era is the arms control period, 1963 to 1991, during which they cooperated in nuclear nonproliferation through arms control and international organizations. The last era is the post-Cold War period, 1991 to the present, and is a mix of cooperative and uncooperative efforts. The following three questions provide the basis for answering the main thesis

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[1] Matthew Bunn and George Bunn, "Reducing the Threat of Nuclear Theft and Sabotage," Conference Proceedings, Symposium on International Safeguards: Verification and Nuclear Material Security, Vienna, Austria, October 29 – November 2, 2001, International Atomic Energy Agency, 2001.

[2] [2]U.S. Department of Energy, "MPC&A Strategic Plan," *Carnegie Endowment for International Peace*, http://www.ceip.org/files/projects/npp/pdf/mpcaplan.pdf (accessed 26 August 2004).

question: 1) why did the United States and Soviet Union pursue separate but similar nuclear nonproliferation efforts during the first era? 2) Why did the superpowers cooperate in nuclear nonproliferation in the second era? 3) Why do the United State and Russia currently use a mix of cooperative and non-cooperative efforts in combating nuclear proliferation?

B. BACKGROUND

Two great powers emerged from World War II - the United States and Soviet Union - but U.S. nuclear capability had tipped the balance of power in favor of the United States. U.S. nuclear weapons created a security dilemma for the Soviet Union; while they boosted U.S. security, Russia felt it was a direct threat to its security,[3] and acted to balance U.S. power by developing an indigenous nuclear weapon. Although the great powers presented the Baruch and Gromyko plans at the United Nations (UN) to control fissionable material, the anarchic, self-help international system made cooperation difficult and bred competition.[4] Their mutual distrust of one another prevented them from working together in stopping nuclear proliferation and they resorted to unilateral efforts during the first era. Their parallel efforts created a tacit arrangement of preventing global nuclear proliferation, and "spontaneous cooperation," without legally binding agreements or formal rules began. [5] The nonproliferation limitations of spontaneous cooperation were realized during the 1960s with the Cuban Missile Crisis and first Chinese nuclear detonation.

The Cuban Missile Crisis and first Chinese nuclear test led the superpowers to formally unite their efforts. They did so by changing their nonproliferation arrangement from tacit to explicit by mandating strict patterns of action and defining what constituted cooperation and defection.[6] Although their nonproliferation policies were similar, giving nuclear assistance to their allies, U.S. assistance to NATO and Soviet assistance to China, put them on a course for a nuclear showdown. Washington was not overly concerned

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[3]Robert Jervis, "Cooperation under the Security Dilemma," *World Politics* 30, no. 2 (January 1978): 170.

[4]Benjamin Miller, *When Opponents Cooperate: Great Power Conflict and Collaboration in World Politics* (Michigan: University of Michigan Press, 1995), 15.

[5]Ibid., 20.

[6]Ibid.

about their close allies and friends going nuclear, and actually envisioned a strategic benefit by "equipping" them with these weapons.[7] While Washington did not mind helping NATO and Moscow was very eager to help China, they were opposed to their rival doing the same thing and wanted to prevent it. Soviet actions to prevent West Germany from gaining nuclear weapons led to the Cuban Missile Crisis which began the process of changing the superpowers' attitude of cooperation. Crisis management, or the attempts to advance and protect interests and security by "coercive threats and maneuvers,"[8] led to an amicable solution The superpowers reached an agreement that reduced the perceived security threat, and managed to negotiate a minimal arms control treaty, the Limited Test Ban Treaty (LTBT) of 1963, but another storm was brewing. China's nuclear program was a great threat to Washington and Moscow, and its successful nuclear test in 1964 forced the superpowers to accept the reality that if they did not cooperate, other countries would proliferate.

Washington and Moscow realized that if they did not work together to prevent the spread of nuclear weapons, their security would always be in jeopardy. They began to cooperate through "conflict resolution" by negotiating how they could work together to prevent new countries joining the nuclear club.[9] These negotiations led to a long-term security regime, the Nuclear Nonproliferation Treaty (NPT) of 1968. Their efforts resulted in the most instrumental regime in preventing widespread proliferation. It has been successful because Washington and Moscow convinced almost all their allies and friends not to pursue nuclear weapons and accede to the treaty. The superpowers entered a period of arms control agreements that were designed to retard proliferation and eventually lead to nuclear disarmament. The united efforts of the superpowers were challenged and have diminished after the collapse of the Soviet Union.

The post-Cold War era has witnessed a mix of cooperative and uncooperative efforts in nonproliferation. The United States and Russia claim they are committed to preventing the spread of nuclear weapons, yet their actions are sometimes questionable.

[7]Jim Walsh, *Russian and American Nonproliferation Policy: Success, Failure, and the Role of Cooperation* (MTA Occasional Paper 2004-01, Kennedy School of Government, Harvard University, June 2004), 29.

[8]Ibid., 24.

[9]Ibid., 25.

While they were united in preventing proliferation in Belarus, Kazakhstan, Ukraine, and Russia through the Cooperative Threat Reduction program (CTR), Russia withheld support for the Proliferation Security Initiative (PSI) for over a year. Russia has, according to the United States, also encouraged proliferation by assisting India's missile program and providing nuclear assistance to Iran.[10] The United States unilaterally attacked Iraq for supposedly possessing weapons of mass destruction despite Russian and international protests. The mix of cooperative and uncooperative efforts send mixed signals to the global community that weaken current nonproliferation regimes and efforts and erode years of cooperation.

C. SEVERITY OF PROBLEM

The potential exists for nuclear proliferation to pick up its pace if Washington and Moscow do not view the severity of the threat in the same light. They are divided on the nuclear threat Iran poses to the international community and unless they unite their efforts, Iran will be a nuclear power in a short period of time. Rouge states and non-state actors have also shown an interest in getting a nuclear device. North Korea has been very persistent in its attempts to become a nuclear power, and Osama bin Laden has indicated it is his "religious duty" to acquire nuclear weapons.[11] In order to slow down Iran's nuclear aspirations and prevent, as best they can, nuclear proliferation by rouge and non-state actors, the United States and Russia must define the greatest threats and work together to eliminate them. The events of September 11, 2001 only elevate concerns that the next major terrorist attack might involve a nuclear or radiological weapon.[12]

Another factor that increases the threat of proliferation comes from the former Soviet Union. It had the world's largest nuclear arsenal, and its disintegration left nuclear weapon stockpiles and material in Belarus, Kazakhstan, Ukraine, and Russia vulnerable to theft.[13] How probable is it that nuclear material could be stolen from the Soviet

[10]Michael Eisenstadt, "Russian Arms and Technology Transfers to Iran: Policy Challenges for the United States," *Arms Control Association*, http://www.armscontrol.org/act/2001_03/eisenstadt.asp (accessed 28 July 2004).

[11]Charles B. Curtis, "Issues Facing the Global Nonproliferation Regime," *Nuclear Threat Initiative*, http://www.nti.org/c_press/c1_speeches.html (accessed August 16, 2004).

[12]Tom Collina and Jon Wolfsthal, "Nuclear Terrorism and Warhead Control in Russia," *Arms Control Association*, http://www.armscontrol.org/act/2002_04/colwolfapril02.asp (accessed March 8, 2004).

[13]Nuclear Threat Initiative, "Country Information," *Nuclear Threat Initiative*, http://www.nti.org/e_research/profiles/index.html (accessed March 1, 2004).

Union, and then used against the United States? Senator Sam Nunn, CTR co-founder and advocate, believes it is highly likely. He said theft of nuclear material or weapons from the former Soviet Union posed "The most serious national security threat to the United States and it allies."[14] Senator Richard Lugar, CTR co-founder and advocate, added that if the United States hopes to have any chance of stopping a nuclear detonation on its territory it must start preventive measure at the source, which are, "the weapons and material depots and research institutes in the former Soviet Union and elsewhere."[15] Although Washington and Moscow initiated the CTR program to secure and eliminate nuclear weapons and material, a credible threat still exists since the physical security at many nuclear facilities is still not as strong as it needs to be.[16]

Following the September 11, 2001 terrorist attacks, Washington attempted to further thwart this potential threat by increasing domestic security and reaffirming its commitment to the CTR program with Russia. It has also updated its National Security Strategy to reflect a new doctrine which states the United States reserves the right to act preemptively.[17] Additionally in 2003, President Bush initiated the PSI calling for the interdiction of suspected shipments of weapons of mass destruction; fifteen countries are participants and sixty more endorse its principles.[18] After withholding PSI support for over a year, Russia announced in June 2004 it was joining this international effort to combat proliferation.[19]

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[14]Department of Energy, "MPC&A Program Strategic Plan," *Carnegie Endowment for International Peace*, http://www.ceip.org/files/projects/npp/pdf/mpcaplan.pdf (accessed August 18, 2004).

[15]Ibid.

[16]Curtis, "Issues Facing the Global Nonproliferation Regime," *Nuclear Threat Initiative,* http://www.nti.org/c_press/c1_speeches.html.

[17]President George W. Bush, "National Security Strategy," *The White House*, http://www.whitehouse.gov/nsc/nssall.html (accessed 12 August 2004).

[18]Wade Boese, "Proliferation Security Initiative Advances – but Russia and China Keep Their Distance," *Arms Control Association*, http://www.armscontrol.org/act/2004_03/PSI.asp (accessed 8 March 2004).

[19]Reuters, "Russia joins Bush's drive against WMDs," *Gazeta*, http://www.gazeta.ru/cgi-bin/newsarc.cgi (accessed July 1, 2004).

Nonproliferation Efforts / Outcome	Cases involving no Cooperation	Cases involving Cooperation
Failure	China France Great Britain India Israel Pakistan	0
Success	Argentina Australia Belarus Brazil Canada Cuba Egypt Germany Greece Indonesia Italy Japan Kazakhstan Romania South Africa South Korea Sweden Switzerland Taiwan Turkey Ukraine Yugoslavia Other NPT signatories	Belarus Cuba Germany Kazakhstan South Africa Ukraine Other NPT signatories

Table 1. Cooperative Nonproliferation Outcomes (After Walsh, 22)[20]

D. ARGUMENT

This thesis argues that cooperation is the most successful deterrent in preventing proliferation. While united efforts will not prevent every state from gaining nuclear weapons, the success rate is higher than unilateral actions alone, as shown in table 1. The United States can ill afford to fight every nuclear proliferation threat without Russian help, which is still a global power in spite of its problems. U.S. and Russian unilateral actions did not stop nuclear proliferation in the past, and they will fail today. Their

[20] Walsh defines cooperative efforts as being between the United States and Soviet Union. He identifies Britain, France, China, Israel, India, and Pakistan as nonproliferation failures, and Cuba, West Germany, Belarus, Kazakhstan, and Ukraine as successes. He also identified a mixed outcome, meaning it represented both success and failure which I decided not to include. I moved South Africa from mixed to success since I believe it should be considered a success, as described later. I also added NPT signatories since U.S.-Soviet efforts brought their allies and friends, other than the ones already listed, to the NPT table and made them become NPT members, giving up future desires of nuclear proliferation, unless they withdrew.

interests are different and their leaders will not agree on every proliferation threat, but the threats they do agree on need unified efforts or nuclear nonproliferation will become a thing of the past.

E. THESIS OUTLINE

Chapter II is a historical perspective of U.S. and Soviet nuclear nonproliferation policies during the escalation of the Cold War. This chapter analyzes why Washington and Moscow chose similar but uncooperative efforts in preventing global nuclear proliferation and concludes by presenting that distrust between the superpowers was the main reason they refused to cooperate.

Chapter III covers the era of arms control agreements between the superpowers. This chapter investigates the reasons why the United States and Soviet Union decided to act cooperatively in preventing the global spread of nuclear weapons. A short history of the Berlin and Cuban Missile Crises is presented followed by a discussion of two nonproliferation regimes, the LTBT and NPT, entered into by Washington and Moscow. The conclusion is that the superpowers learned to cooperate in nonproliferation by setting aside their distrust for one another, at least in one area of common concern. China's successful ascension to nuclear status was the catalyst for bringing the superpowers together.

Chapter IV focuses on the post-Cold War era. This chapter probes why the United States and Russia are using a mix of cooperative and uncooperative efforts to counter proliferation. Three cases representing a different mix of cooperative efforts of Washington and Moscow are presented. The first case presents U.S. and Russian cooperative efforts and involves their efforts to secure and dismantle nuclear stockpiles and weapons in the former Soviet Union. The second case presents a mix of cooperative efforts involving the Proliferation Security Initiative and the Missile Technology Control Regime. The last cases present no cooperation with Russia providing nuclear assistance to Iran and the U.S war in Iraq. The chapter concludes that U.S.-Russian cooperative efforts have varied for the following reasons: 1) the global balance of power shifted in

favor of the United States, 2) respect for each other decreased and distrust increased, and 3) Russia's internal problems forced it to focus on stabilizing itself rather than on nonproliferation.

Chapter V summarizes the findings from the previous chapters. Initial nonproliferation efforts between Washington and Moscow were disjointed and unilateral because of growing distrust of the others' actions. The superpowers came together to prevent China, a common nuclear proliferation threat, and other states from joining the nuclear club. Their efforts were largely successful albeit a few countries still managed to go nuclear. The collapse of the Soviet Union and end of the Cold War has challenged U.S. and Russian resolve to cooperate in nuclear matters, and their efforts have devolved to a mix of cooperative and uncooperative efforts. The implications of being less unified are twofold. First, the effectiveness of nonproliferation barriers previously built by the United States and Russia are reduced. Second, nuclear proliferation may accelerate as rouge and non-state actors take advantage of dwindling U.S.-Russian cooperation. Iran, North Korea, rouge states, and non-state actors have stepped up their efforts become nuclear weapon powers in the post-Cold War environment. If Washington and Moscow want to decelerate nuclear proliferation they will need to make a more concerted effort to assist and work with one another, and make combating nuclear proliferation a higher priority than their distrust of one another. Cooperation will not be possible in every case, but efforts to work together should be the norm, not the exception.

II. ESCALATION OF THE COLD WAR

A. INTRODUCTION

Standing on the brink of annihilation, the superpower leaders played a dangerous game of nuclear chicken during the Cuban Missile Crisis. Nearly twenty years after end of World War II, the United States and Soviet Union stood toe-to-toe in the world's tensest nuclear confrontation. The U.S. nuclear monopoly was a major reason for the collapse of the U.S.-Soviet alliance following World War II. The Soviet Union urgently worked to develop nuclear weapons to balance the United States, and became the world's first nuclear proliferator.[21] Its decision to pursue nuclear weapons, amid U.S. attempts to prevent it, brought about a furious arms race. This chapter explores why the United States and Soviet Union endured such a long period of unilateral actions before they chose to cooperate in nuclear nonproliferation.

I present a historical survey of U.S. and Soviet nuclear nonproliferation policies to explore why they chose not to cooperate. The next section explores the superpowers' history of nuclear nonproliferation policies to answer the question. As the superpowers' fear of proliferation grew, they adopted similar unilateral policies to prevent the spread of nuclear weapons.[22] The conclusion presents the finding that distrust between the superpowers prevented cooperation from developing.

B. NONPROLIFERATION POLICY EVOLUTION

U.S. and Soviet tensions escalated between 1945 and 1962. Two key factors were instrumental: 1) the U.S. nuclear monopoly and 2) the German nuclear question. The balance of power favored the United States because of its nuclear monopoly, and the Soviet Union desperately struggled to restore the balance through nuclear development.[23] Moscow poured every ounce of effort into this project and went nuclear much earlier than U.S. intelligence expected. The Soviet nuclear bomb meant the U.S. monopoly would

[21] Joseph S. Nye Jr., "U.S.-Soviet Cooperation in a Nonproliferation Regime." In *U.S.-Soviet Security Cooperation: Achievements, Failures, Lessons*, ed. Alexander L. George, Philip J. Farley, and Alexander Dalling (New York: Oxford University Press, 1988), 338.

[22] Ibid., 337.

[23] David Holloway, *Stalin and the Bomb* (New Haven & London: Yale University Press, 1994), 132.

soon vanish, and the U.S. redoubled its efforts to maintain its monopoly by developing the superbomb. The U.S. superbomb detonation in 1952 was matched by the Soviet Union less than a year later. The arms race intensified as the superpowers attempted to gain nuclear superiority through massive nuclear stockpiles and more powerful and destructive nuclear weapons, but this was only one factor for the Cold War escalations.

The allies originally planned to keep Germany from rising again as a military power, but as time passed, this stance changed. The Western powers considered rearming Western Germany to help check the growing Soviet threat and U.S. leadership even hinted at providing it nuclear weapons.[24] Moscow was very leery of western plans and the German nuclear question was the greatest contributor to escalating Cold War tensions in Europe.[25]

The implications of being nuclear powers were unclear to the superpowers', [26] and their initial nuclear policy of secrecy and unilateral control reflected this, but as they dealt with the ramifications of having nuclear weapons, their nonproliferation policies evolved and matured. Although the United States and Soviet Union did not cooperate to prevent proliferation, their policies were nearly identical. They initially used secrecy and unilateral restriction to prevent proliferation, but as new countries joined the nuclear club, they switched to nuclear sharing. This switch in policy did not prevent proliferation, and their fear of the additional nuclear powers drove them to cooperate in negotiating a nuclear nonproliferation treaty.

1. Secrecy and Unilateral Restriction

The prospect of Germany being the first to develop the nuclear bomb forced the United States into action. Roosevelt ordered an all-out effort to develop the atomic weapon in November 1941 in cooperation with Britain, whose nuclear science was superior to U.S. technology.[27] In June 1942 the top-secret Manhattan Project began.[28]

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[24]Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement 1945-1963* (Princeton, New Jersey: Princeton University Press, 1999), 209-210.

[25] Ibid. This statement reflects the overall conclusion of *A Constructed Peace* by Marc Trachtenberg.

[26]Walsh, 2.

[27]Dean Acheson, *Present at the Creation* (New York: Norton, 1969), 164.

Progress was impressive as fear of a German nuclear monopoly brought a sense of urgency to the project.[29] Everything about the program was kept secret for fear that any leak in U.S. nuclear efforts would cause the Germans to accelerate their work. Many nuclear scientists, including Roosevelt's science advisors, were against secrecy because they were convinced it would promote nuclear proliferation. [30] They believed Stalin might be convinced of the necessity of international atomic energy control and international cooperation if secrecy was abolished.[31] The U.S. atomic monopoly would not last long, they predicted, and the risks of international control would be less than a nuclear arms race.[32] Roosevelt initially agreed, but Churchill convinced him to maintain absolute secrecy because of the distrust for Stalin. The alliance with the Soviet Union was built to fight a common enemy, Germany, and not on trust.

The Soviet Union was involved in nuclear research prior to the start of World War II, but it all but stopped as Soviet researchers joined the war effort.[33] In 1942 Soviet physicist Gheorgy Flerov sounded the alarm on U.S. nuclear development. He noticed that all references to U.S. atomic work or of leading American nuclear physicists in an American physics journal ceased. He realized this meant the United States had gone top secret with its nuclear research.[34] It took nearly a year after Flerov elevated this issue for Stalin to push nuclear research into high gear. These atomic efforts were not critical to the war efforts against Germany; rather they were a "small hedge against future uncertainties" that might arise from U.S. nuclear efforts.[35] After the atomic detonations over Japan, the United States and Soviet Union presented at the UN differing plans for international atomic control to prevent nuclear proliferation.

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[28] Gordon Edwards, Canada's Role in the Atomic Bomb Programs of the United States, Britain, France and India: *Canadian Coalition for Nuclear Responsibility, A* Chronology < http://www.ccnr.org/chronology.html>.

[29] Lawrence Freedman, *The Evolution of Nuclear Strategy* (London: Palgrave Macmillan, 2003), 38.

[30] Richard G. Hewlett and Oscar E. Anderson Jr, *A History of the United States Atomic Energy Commission: The New World, 1939-1946* (University Park, Pennsylvania: The Pennsylvania State University Press, 1962), 1:325-329.

[31] Ibid.

[32] Ibid.

[33] Holloway, 75.

[34] Ibid., 75, 85.

[35] Ibid., 90.

The atomic devastation in Japan convinced Truman and other U.S. leadership to propose international nuclear control, as long as it met U.S. requirements. In Congressional testimony in October 1945, Truman stated the United States could support international control as long as it prevented proliferation, replaced nuclear rivalry with cooperation, and followed U.S. established criteria.[36] The Acheson-Lilienthal committee was charged with developing an international atomic control plan, and in early 1946 released its report calling for an international Atomic Development Authority (ADA). The report stated the ADA was needed because no inspection system could prevent the diversion of nuclear material to war purposes because there were too many opportunities to cheat.[37] To prevent the diversion of such material the ADA would participate in many atomic energy production activities, including all aspects that are considered dangerous.[38]

Bernard Baruch, U.S. representative to the UN, made this report the building block for his international control presentation at the UN in June 1946. The Plan's intent was twofold: 1) prevent other nations from pursuing nuclear weapons, and 2) establish international control for atomic energy. Truman told Baruch, "We should not under any circumstances throw away our gun until we are sure the rest of the world can't arm against us."[39] The United States would submit to international control and give up its nuclear weapons only after all other nations agreed not to develop them. Baruch changed the spirit of the Acheson-Lilienthal report from "conciliation to belligerence,"[40] calling for the "immediate, swift and sure" punishment of states attempting to develop nuclear weapons.[41] Acheson said Moscow could interpret this provision as an attempt by the United States to create a UN alliance to enforce its efforts to stop Soviet nuclear developments."[42] Baruch believed the Security Council members' veto power, in atomic

36 Timothy J. Botti, The Long Wait: The Forging of the Anglo-American Nuclear Alliance, 1945-1958 (New York: Greenwood Press, 1967), 8-9.

37 U.S. Department of State, *A Report on the International Control of Atomic Energy* (Washington D.C.: U.S. Government Printing Office, 1946).

38 Ibid.

39 Harry S. Truman, *Years of Trial and Hope* (New York: Signet, 1965), 25.

40 Peter A. Clausen, *Nonproliferation and the National Interest: America's Response to the Spread of Nuclear Weapons* (New York: HarperCollins, 1993), 13.

41 Coit D. Blacker and Gloria Duffy, *International Arms Control: Issues and Agreements* (Stanford, California: Stanford University Press, 1984).

42 Acheson, 155.

energy cases, could be used as a delay tactic to give offending nations more time to develop nuclear capabilities, and proposed its removal. The Soviet Union rejected the Baruch Plan and countered with the Gromyko Plan.

The Soviet Union was feverishly developing its nuclear weapon and not willing to submit to U.S. nuclear superiority. The Soviet UN Security Council representative, Andrei Gromyko, presented the Soviet plan for international control. It rejected the Baruch Plan's provision allowing the United States to keep its nuclear arsenal because this would freeze its nuclear superiority without the Soviets ever achieving nuclear status.[43] It demanded the United States give up its nuclear weapons and cease all fissile production before other nations submitted to international control.[44] The Soviet Union realized this demand would force the United States to reject the Gromyko Plan since it would not give up its monopoly.[45] Rather than form a powerful international ADA, which Moscow felt would be dominated by Americans and bring all nuclear material under U.S. control[46] it proposed individual states enforce nonproliferation within their own borders.[47] The Soviet Union objected to removing the Security Council members' veto power since it would erode the fundamental principles of the UN and give the United States too much power in controlling other states.[48]

The superpowers were not willing to compromise their positions and negotiation stalled. The first attempts at international control of atomic energy failed. After two fruitless years, the United States recommended ending negotiations because it believed the Soviet Union was trying to buy more time for its nuclear program.[49]

In September 1945, Congress introduced legislation to restrict U.S. nuclear technology and information sharing. Senator Brian McMahon's proposal, which became the U.S. Atomic Energy Act (AEA) of 1946, relied upon secrecy and unilateral restriction

[43] Holloway, 162.

[44] Clausen, 14.

[45] Holloway, 162.

[46] Aleksandr E. Efremov, *Nuclear Disarmament*, trans. Boris Belitsky and Yuri Shirokov (Moscow: Progress Publishers, 1979), 15-16.

[47] Holloway, 162.

[48] Efremov, 15-16.

[49] Botti, 30.

to prevent nuclear proliferation. The UN impasse on international atomic control made AEA passage a critical issue for Congress, and in July 1946, it passed both Houses and became law. The AEA made it virtually impossible for the United States to share any nuclear information with anyone, including Great Britain.[50] The AEA established the Joint Congressional Committee on Atomic Energy to insure nuclear information was kept secret. It had tremendous power and could veto all international atomic energy agreements.[51] This legislation failed to stop the spread of nuclear weapons. On August 29, 1949, the Soviet Union successfully detonated its first atomic bomb and a foreboding memo to President Truman predicting an arms race towards mutual destruction began to be fulfilled.[52] Secrecy failed to prevent nuclear proliferation and a new policy of sharing began to take shape.

2. Sharing Nuclear Secrets

The Soviet atomic success dealt several blows to the United States. First, Washington realized its nuclear monopoly and ability to pressure the Moscow would soon end. Second, no matter how tight-lipped it was, nuclear capability was within reach of other countries. Third, it realized it needed to cooperate with its allies to prevent proliferation and check Soviet nuclear progress. These realizations made Eisenhower shift U.S. policy from secrecy to sharing, but it took Congress five years to pass the necessary legislation to allow his policies.

During these five years several key events further convinced the United States to cooperate. The Soviet Union proved its technical capabilities were at parity with the United States by testing a superbomb shortly after the United States.[53] Churchill threatened to disclose the World War II U.S.-British atomic cooperation and revoke U.S. basing rights on British bases unless the United States renewed nuclear cooperation with

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[50]Ibid., 23.

[51] Hewlett, 530.

[52] Virginia I. Foran, *Nuclear Nonproliferation, 1945-1991: Guide and Index* (Alexandria, Virginia: Chadwyck-Healey, 1992), 1:49.

[53] Botti, 118.

it.[54] Newly elected President Eisenhower expressed his opinion that Britain had been treated poorly in "post-war nuclear matters" and lobbied for increased cooperation.[55]

Eisenhower believed atomic power could be used politically and militarily to improve U.S. security and relations with allies, and advocated a two-pronged nuclear sharing approach.[56] The first prong was the Atoms for Peace program which he presented before the UN in December 1953. It promised nuclear assistance for peaceful purposes after countries had renounced their intentions of seeking nuclear weapons. The second prong involved the military, and allowed sharing the characteristic of U.S. nuclear weapons deployed in Europe. Eisenhower believed providing NATO allies with this information would preempt their incentives to develop their own independent national nuclear force.[57] Congress passed a 1954 revision to the Atomic Energy Act to accommodate Eisenhower's new two-pronged policy.

The Atoms for Peace program's main accomplishment was the founding of the International Atomic Energy Agency (IAEA).[58] Eisenhower envisioned the IAEA as a bank-like organization that would impound, store, and protect contributed fissionable and other materials, from the United States and Soviet Union, and disperse them to nations for peaceful atomic purposes.[59] Although both countries' contributions would be small in comparison to their stockpiles, their cooperative efforts might "finesse the intractable problems of inspection, enforcement, and international control that had doomed the Baruch Plan and other comprehensive approaches."[60] The United States believed this would slow or stop nuclear proliferation by making acquisition of nuclear materials much more difficult and shift countries away from proliferation towards peaceful nuclear uses. It was also hoped that Atoms for Peace would also lead to the eventual disarmament of

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[54] Ibid., 72.

[55] Ibid., 107-109.

[56] Walsh, 3.

[57] Ibid., 28.

[58] Nye Jr., 336.

[59] Dwight D. Eisenhower, "Atoms for Peace: Address by Mr. Dwight D. Eisenhower, President of the United States of America, to the 470th Plenary Meeting of the United Nations General Assembly," IAEA.org, http://www.iaea.org/About/history_speech.html (accessed 15 August 2004).

[60] Clausen, 30.

the superpowers.[61] While the peaceful use of nuclear energy was promoted and did have some success, it did not lead to disarmament and actually assisted India in gaining nuclear capability.[62]

Negotiations changed IAEA's fundamental purpose and provided the first glimmer of hope that Washington and Moscow could cooperate in nuclear matters. Soviet leadership was concerned the Atoms for Peace program would promote proliferation by spreading fissile material around the globe, and put their participation in the fissile bank in doubt.[63] Since the Soviet Union's participation was questionable, U.S. leaders realized a fissile bank would not work and changed IAEA's purpose to be a "clearing house" to buy and resell nuclear power plants and fuel.[64] The Soviet Union rejoined negotiations and helped stand up the IAEA in 1957.

Eisenhower determined it was time for Europe to become "a third great power bloc" and take responsibility for its defense against the Soviet Union.[65] The United States had drawn down its European troop presence after World War II and depended on its nuclear monopoly to deter the Soviet Union. Following the first Soviet atomic test, U.S. leadership realized retaking Europe would be impossible against a nuclear armed Soviet Union and built-up military forces in Europe to prevent it from being overrun.[66] This buildup was a temporary fix until Western Europe could defend itself, which it could do sooner if two things occurred: 1) U.S. nuclear weapons were deployed to Europe, and 2) West Germany was permitted to remilitarize to contribute forces to Europe's defense. Two obstacles stood in the way of these solutions: the AEA of 1946 prevented U.S. nuclear assistance, and the Soviet Union threatened preemptive strikes if

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[61] Ibid.

[62] The U.S. Atoms for Peace program assisted India by providing it with peaceful nuclear items for civilian use. The United States was caught off guard when India exploded a "peaceful" nuclear bomb in 1974. Investigations into India's nuclear weapon development revealed the Atoms for Peace program provided the materials necessary for India's test.

[63]David Fischer, "History of the International Atomic Energy Agency: The First Forty Years," IAEA.org, http://www-pub.iaea.org/MTCD/publications/PDF/Pub1032_web.pdf (accessed 31 August 2004).

[64]Ibid.

[65]Trachtenberg, 147.

[66]Ibid., 100.

West Germany was allowed to rearm.[67] Eisenhower developed a work around to the AEA problem by not ”overtly” giving; U.S. nuclear weapons to NATO allies but made U.S. custody so “weak and ineffectual” that effective control was essentially in European hands.[68] At the end of his presidency, non-U.S. NATO forces had nearly five hundred U.S. nuclear weapons in their possession,[69] but he had not resolved the Soviet concern of West Germany.

Soviet participation in Atoms for Peace was forced upon them when the United States announced the program. Soviet leadership was initially against the plan because of its proliferation risk. Foreign Minister Molotov told Secretary of State Dulles Atoms for Peace would only add to the world’s supply of “weapon-usable fissile material,” a point the United States had not considered.[70] Even with the proliferation problems, it was too “politically risky” to reject and in July 1954 it agreed to participate.[71] The Soviet Union went beyond the scope of the U.S. program by offering its assistance to all countries within and without the Soviet bloc without requiring “military or political restrictions.”[72] The Soviet Atoms for Peace participation ended abruptly in 1958 due to an increasingly aggressive China.

Soviet participation in Atoms for Peace enabled it to share nuclear secrets with its ally, China, without U.S. condemnation. The Soviet Union and China established the Sino-Soviet science and technology commission in 1954.[73] In 1957 their cooperation had grown close enough that a defense agreement was signed giving the Chinese Soviet technical data for building an atomic bomb, and a prototype to study.[74] Khrushchev recalled, “We’d given the Chinese almost everything they asked for. We kept no secrets

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[67]Ibid., 111-112.

[68]Ibid., 198.

[69]Ibid., 194.

[70] Clausen, 31.

[71] Ibid.

[72]Nye Jr., 340.

[73] Ibid.

[74] John Gittings, *Survery of the Sino-Soviet Dispute: A Commentary and Extracts from the Recent Polemic 1963-1967* (London, New York, Toronto: Oxford University Press, 1968), 102.

from them."[75] Their relationship quickly deteriorated when China acted too aggressively towards the United States, perhaps encouraged by Khrushchev's "boasts of Soviet nuclear-missile superiority over the West."[76] The split in the Sino-Soviet pact occurred in 1958 during the Taiwan Strait crisis at which point the Soviet Union realized the folly in sharing atomic secrets. If it continued sharing nuclear technology the time might come when one of its nuclear assisted allies might drag it into a nuclear war with the United States.[77] The risk was too much and the Soviet Union stopped Atoms for Peace participation, backed out of the Sino-Soviet pact, and reneged on sending the prototype atomic weapon to China.

Kennedy changed the NATO sharing policy when he became President. Nuclear proliferation, especially China, was now a main concern, and nuclear sharing fell out of vogue.[78] Control of nuclear weapons was taken back but the European nuclear question was not solved. Europe was not prepared to defend itself now, nor in the near future, and needed U.S. assistance. The United States might be able to help Britain and France with nuclear weapons, but Kennedy knew giving nuclear help to West Germany was too risky. To prevent further problems with the Soviet Union, he decided West Germany would not go nuclear, and U.S. troops would defend it indefinitely. Kennedy presented this idea to Khrushchev in June 1961, but it was rejected.[79] A year later the unsolved German nuclear question bore fruit: the Cuban Missile Crisis.

C. CONCLUSION

The overarching reason the superpowers chose not to cooperate in preventing nuclear proliferation was distrust. Capitalism and communism are on differing sides of the political spectrum and the resulting mistrust is evident in their relationship. Their World War II alliance was not built on trust but rather on fighting a common enemy. Mistrust prevented them from informing or involving the other in their respective nuclear

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[75] Nikita S. Khrushchev, *Khrushchev Remembers: The Last Testament*, trans. and ed. Strobe Talbott (Boston, Toronto: Little, Brown and Company, 1974), 268.

[76] Benjamin S. Lambeth, "Nuclear Proliferation and Soviet Arms Control Policy," *Orbis* (summer 1970): 309.

[77] Ibid., 310.

[78] Ibid., 285.

[79] Ibid., 322.

research. The U.S. nuclear monopoly shifted the balance of power in its favor and increased the Soviet distrust for the United States and led to the alliance collapse. Stalin realized that achieving the nuclear bomb would not only restore the balance of power, it would give him additional strategic power, and eliminate the U.S. nuclear monopoly. In order to get its prestige back, the Soviet Union needed to counter the U.S. strength with a nuclear bomb; therefore it could not agree to proliferation cooperation with the United States until it had the same power

The U.S. and Soviet international atomic control plans were conceived on distrust for the other. The U.S. plan would have locked in its nuclear monopoly over the Soviet Union. If Stalin accepted it, the Soviet Union would always be in a position of weakness in any future dealings with the United States. The Soviet counter-proposal, called for the United States to give up its nuclear monopoly before establishing international atomic control, which the United States refused to do.

Additionally, the United States and Soviet Union had a genuine fear of other nuclear powers, especially if it was its rival's ally. While both were against the other helping its allies obtain nuclear capability they saw nothing wrong with helping their respective allies. This oxymoronic belief led to more problems in cooperation than any other nonproliferation policy adopted because it bred mistrust of the other's actions. For example, the United States discussed different options for Europe to counter the Soviet threat including giving France, Britain, and West Germany nuclear weapons. The option of helping West Germany infuriated the Soviet Union because it had been surprise attacked twice by Germany, and was not willing to allow it a third chance. The United States feared the spread of communism and looked down upon the eagerness of the Soviet Union to help China with nuclear technology. Their respective fears of additional nuclear powers and distrust of the others' motivation prevented the United States and Soviet Union from cooperating.

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III. LEARNING TO COOPERATE

A. INTRODUCTION

On July 30, 1977, a Soviet satellite discovered South Africa's secret nuclear test site in the Kalahari Desert, and on August 6, 1977, four more satellite passes confirmed this discovery.[80] The Soviet Union alerted the United States about the nuclear testing facility and a U.S. satellite verified the findings. Cooperative efforts and pressure from the United States and Soviet Union played a major part in convincing South Africa not to conduct nuclear tests. South Africa yielded to international pressure and sealed off the nuclear test facilities' underground shafts. The united efforts of the superpowers stand in stark contrast to their unilateral nonproliferation attempts during the first two decades of the Cold War.

The Cuban Missile Crisis was a pivotal event in starting U.S.-Soviet cooperative nonproliferation efforts. The Crisis made the superpowers realize understanding and cooperation were necessary ingredients in preventing proliferation. Several key events in 1963 eased tensions further: the LTBT was signed, the German nuclear question was answered, and the United States lost its nuclear superiority. This chapter examines why the United States and Soviet Union cooperated in nuclear proliferation between 1963 and 1991.

In this chapter I present the key events that led to U.S. and Soviet cooperation. The background section discusses these events and their effect on the U.S.-Soviet relationship. It is divided into two main subsections: the first is a short history of the German nuclear question and the second discusses the Limited Test Ban and Nuclear Nonproliferation Treaties. The chapter concludes the superpowers set their mistrust of one another aside and focused their efforts on combating the spread of nuclear weapons through international nonproliferation regimes.

[80]Mitchell Reiss, *Bridled Ambition: Why Countries Constrain Their Nuclear Capabilities* (Washington D.C.: The Woodrow Wilson Center Press, 1995), 10.

B. BACKGROUND

The crucial dividing line in U.S.-Soviet cooperation occurred with several significant events during the first half of the 1960s. Soviet angst about a nuclear West Germany and China erupted, the U.S. nuclear superiority waned, China went nuclear, and arms control negotiations began in earnest. The events, although initially painful, produced positive consequences in U.S.-Soviet relations and were causal factors in creating cooperation.

Moscow felt the greatest nuclear threat came from two countries, West Germany and China.[81] The U.S. plan to remilitarize Germany through a multilateral nuclear force (MLF) was the proliferation-"straw that broke the camel's back." Soviet opposition to this plan was the causal factor to the Berlin Crisis and later the Cuban Missile Crisis.[82] Matters were only made worse as Sino-Soviet relations fell apart. Moscow had provided inordinate nuclear help to China during Atom for Peace, and as their relationship deteriorated, the threat of a large hostile nuclear power on its borders scared Moscow. Pushed to the brink of nuclear war over the German nuclear question and a nuclear neighbor were motivating factors for Moscow to work with Washington in nonproliferation.

The end of U.S. nuclear superiority loomed ominously on the horizon after the Soviet Union successfully tested its first nuclear weapon. Washington dreaded the day when the Soviet Union would achieve parity; it feared its nuclear deterrent would no longer prevent Soviet aggression. Nuclear parity was reached in 1963, but increasing Soviet aggressions failed to materialize, as a matter-of-fact, relations between the superpowers improved.[83] The relaxation of tensions was the genesis of the arms control era. Although problems still persisted, distrust, competition, and unilateral policies were minimized and cooperation maximized.

The superpowers' proliferation concern grew as additional countries joined the nuclear club: Britain (1952), France (1960), and China (1964). China's ascension to

[81]Bunn, 67.

[82]Trachtenberg, 253.

[83]Ibid., 352.

nuclear status was the most threatening to the superpowers and the key event unifying their fight against proliferation. China's nuclear ambitions began in response to U.S. nuclear threats during the Korean War,[84] and their efforts were greatly assisted by the Soviet Union. It is estimated the Soviet Union accelerated China's nuclear program fifteen years ahead of a normal schedule.[85] Its nuclear progress led Kennedy to label it a serious security threat to the United States,[86] and his fears were confirmed when the Pentagon placed China at the top of a list of more than ten countries with the potential of going nuclear within the decade.[87] Soviet leadership shared the same sentiment of China as the United States, and wanted to prevent it from achieving nuclear status. Their initial efforts, the LTBT, fell far short and the Chinese achieved their objective. The first successful Chinese nuclear test on October 16, 1964, convinced U.S. and Soviet leaders that they could no longer delay cooperative efforts in preventing the spread of nuclear weapons, and they began nonproliferation treaty negotiations in haste.

U.S. and Soviet politicians did not seriously pursue arms control before the Cuban Missile Crisis for two reasons. First, the U.S. and Soviet leaders rarely saw the same proposal being in their nations' interest at the same time.[88] Second, arms control negotiations were not always used to achieve an agreement; rather they were instruments for maintaining military contact, presenting a peaceful image to the world, or justifying military action because of an uncooperative adversary.[89] U.S. politicians crafted arms control policies based on U.S. nuclear superiority knowing Moscow would not accept them. They proposed these fruitless arms control platforms because public opinion expected them to make an effort.[90] Additionally, U.S. leaders did not want America to look like a militaristic state,[91] so arms control agreements were public relation tools used

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[84]Nuclear Threat Initiative, "China's Nuclear Weapon Development, Modernization and Testing," *Nuclear Threat Initiative,* http://www.nti.org/db/china/wnwmdat.htm (accessed 26 August 2004).

[85]Roland Timerbaev, *Russia and Nuclear Nonproliferation* (Moscow: Nauka, 1999), 134.

[86]William Burr and Jeffrey T. Richelson, "A Chinese Puzzle," Bulletin of the Atomic Scientists, http://www.thebulletin.org/issues/1997/ja97/ja97richelson.html (accessed 26 August 2004).

[87] Bunn, 67-68.

[88]Ibid., 2.

[89]Ibid.

[90]Trachtenberg, 382.

[91]Ibid.

to gain domestic approval and appease the international community. Soviet intentions were no better as nuclear disarmament was viewed as impractical and any discussion on this subject was mainly for propaganda purposes.[92]

Standing on the brink of nuclear war and China's nuclear success brought U.S. and Soviet leaders to their senses. They moved beyond public relation games and began serious negotiations. After two uncooperative decades, the superpowers were catalyzed by mutual dependence to pursue nonproliferation regimes. They negotiated and established the following four arms control treaties: the Limited Test Ban Treaty of 1963, the Nuclear Nonproliferation Treaty of 1968, the Anti-Ballistic Missile Treaty of 1972, and the Intermediate-Range Nuclear Forces Treaty of 1987

The events of 1963 made the U.S. and Soviet leadership believe two things.[93] First, although their countries were superpowers, they were not invulnerable from war and were dependent on each other's good behavior to improve their countries' security. Second, although unilateral policies are important for security, they are not strong enough to prevent, and may actually promote, competition and instability. The superpowers learned security may be improved by exploring bilateral or multilateral agreements. These beliefs created a "mutual dependence" to improve one another's security and a realization that cooperation must supplement a superpower's own efforts.

1. Berlin and Cuban Missile Crises

The Berlin Crisis began in 1958 when Khrushchev announced the Soviet Union and East Germany were going to sign a peace treaty, and with it, western rights in West Berlin would end.[94] Soviet actions were driven by the perceived nuclear proliferation threat of West Germany. Their response sent a powerful message to the Western powers that it would not stand idly by and let West Germany become a nuclear power with western help. Eisenhower did not relent to Soviet demands and refused to end the option

[92]Adam B. Ulam, *Expansion and Coexistence: Soviet Foreign Policy, 1917-1973*, 2d ed. (New York: Holt, Rinehart and Winston, 1974), 664.

[93]Alexander L. George, Philip J. Farley, and Alexander Dallin, *U.S.-Soviet Security Cooperation: Achievements, Failures, Lessons* (New York: Oxford University Press, 1988). 717

[94]Trachtenberg, 251.

of sharing nuclear weapons with West Germany.[95] Its strength was needed to defend Europe when U.S. troops withdrew. The crisis deepened and remained unresolved until after Kennedy became president.

Khrushchev pressed Kennedy on the German nuclear question, and once again promised to cut-off western rights to West Berlin.[96] Kennedy offered the following provisions to Khrushchev in June 1961: the status quo in Europe would remain; the United States and Soviet Union would maintain their spheres of influence, and West Germany would not be allowed to threaten the Soviet Union.[97] The plan was rejected and shortly thereafter the Soviet Union cut off access between East and West Berlin and the Berlin Wall was erected. No substantial progress was made on the German question in 1961 or much of 1962, and frustrations mounted. In October 1962, the Soviet Union kicked the German nuclear question up a notch and sent nuclear missiles to Cuba.

The Cuban Missile Crisis was the culminating event of the German nuclear question as Khrushchev moved from tough rhetoric to hostile action in October 1962, by deploying nuclear missiles to Cuba. The United States still had a nuclear advantage and used it to challenge the Soviet's deployments. Tensions ran high as the superpowers inched closer to nuclear war. Negotiations ended the Crisis and the Soviet Union met U.S. demands by redeploying its missiles. The superpowers realized the next crisis could involve many more nuclear nations with less restraint and convinced them to work together, however the German nuclear question remained unsolved.

U.S. leadership knew the Soviet Union would not cooperate until their number one concern, West Germany, was resolved. Kennedy decided to answer the question by removing the nuclear option for West Germany, but why limit nuclear nonproliferation to just one country? Rather than single-out West Germany, Kennedy opted to pursue a broad arms control agreement that would link to the German question.[98] Pursuing this route indirectly resolved the German nuclear question, brought about the LTBT, and started the arms control era to control nuclear proliferation.

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[95]Ibid., 263.

[96]Ibid., 283.

[97]Ibid., 322.

[98]Ibid., 382.

2. Nuclear Nonproliferation Regime

The remainder of this chapter will focus on the LTBT and NPT. The superpowers' interest in preventing proliferation moved to center stage after the Cuban Missile Crisis. Washington and Moscow wanted a comprehensive test ban treaty because it would provide a greater deterrence to nuclear development, [99] but they were only able to negotiate a limited treaty. The LTBT was not negotiated to be, nor is it an important nonproliferation treaty; it actually did little to prevent proliferation. The LTBT is significant because it was the first cooperative treaty Washington and Moscow negotiated, and a precursor to NPT negotiations. The key to negotiating the NPT was the successful Chinese nuclear test. It convinced the superpowers to plug the nonproliferation holes of the LTBT in order to prevent other states from going nuclear.

a. Limited Test Ban Treaty

Indian Prime Minister Jawarhal Nehru was the first world leader to call for an end to nuclear testing.[100] The horrifying consequences of nuclear fallout were manifesting themselves and his call represented the voice of the world. Test ban negotiations began in 1955 when Soviet leadership introduced a plan calling for the elimination of nuclear weapons and a comprehensive nuclear weapon test ban.[101] U.S. leadership insisted cooperative on-site monitoring was necessary to verify the comprehensive test, ban but Soviet leadership refused. It felt on-site monitoring was too intrusive and violated its sovereignty while U.S. opinion was it would be the only way to verify the ban and distinguish between earthquakes and low yield explosions.[102] Eventually the Soviet Union compromised and agreed to permit up to three on-site inspections per year.[103] Further progress came to a halt in 1960, when an American U-2 was shot down over the Soviet Union.

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[99]Bunn, 36.

[100] Physicians for Social Responsibility, "A History of the Comprehensive Test Ban Treaty," *Physicians for Social Responsibility*, http://www.psr.org/home.cfm?id=non_proliferation12, (accessed 14 September 2004).

[101]Rebecca Strode, "Soviet Policy Toward a Nuclear Test Ban: 1958-1963." in *The Other Side of the Table: The Soviet Approach to Arms Control*, ed. Michael Mandelbaum (New York, London: Council on Foreign Relations Press, 1990), 7-8.

[102]Ibid., 10.

[103]Bunn, 23.

Kennedy wanted a comprehensive test ban treaty negotiated during his first year in office because he believed nuclear proliferation was a grave security problem to the United States and it would be an important "first step in disarmament and other pacts," with the Soviet Union.[104] Additionally, nuclear developments in China disturbed him. If it went nuclear, U.S. and Soviet security would be threatened, and Kennedy believed a comprehensive test ban might be the only way to slow the Chinese down.[105] Preventing nuclear proliferation was not the only source of pressure in negotiating a test ban treaty.

Domestic and international pressure against the United States to stop nuclear tests increased as nuclear fallout dangers became apparent. Pressure increased after a 1954 U.S. hydrogen bomb test in the Pacific Ocean had an explosive yield twice as large as predicted[106]. The radioactive fallout spread over a much larger area than expected and led to the evacuation of the Rongelap atoll and the death of one Japanese fisherman and sickness of twenty-two others. The test's consequences were so horrific that thousands of scientists petitioned for a test ban. Domestic protests increased to the point that politicians could no longer ignore them and a test ban treaty was sought.

Khrushchev wanted to ease tensions and improve relations with the United States and selected an area he felt they were closest in agreement, nuclear testing.[107] The Soviet Union's main objective was to prevent nuclear proliferation, especially in China and West Germany. It believed these countries posed the greatest proliferation potential and threat to its security. Moscow had provided China with vast amounts of nuclear knowledge and technology, and after their relationship crumbled, Soviet leadership hoped a comprehensive test ban would prevent China from going nuclear. Moscow felt the proposed U.S. MLF would bring West Germany closer to possessing nuclear weapons,[108] which it felt was a direct security threat. Washington assured Moscow that if it signed a comprehensive test ban, West Germany would not go nuclear. With hopes that China

[104]Theodore C. Sorensen, *Kennedy* (New York: Harper & Row, 1965), 727-728.

[105]Trachtenberg, 384.

[106]Bunn, 18.

[107]Norman Cousins, "Notes on a 1963 Visit with Khrushchev," *Saturday Review*, 7 November 1964, 21.

[108]Ibid., 29.

would be deterred and assurances from the United States about West Germany, the Soviet Union moved ahead with test ban negotiations.

The Cuban Missile Crisis provided the final push for the superpower to conclude a test ban treaty. Both sides made concessions, but on-site verification and not enough U.S. Senate votes to ratify appeared to doom the comprehensive test ban treaty. Kennedy understood without the necessary votes and Khrushchev's support, the test ban initiative would end. To save the negotiations he proposed a limited test ban, which would eliminate oceanic, atmospheric, and space testing, and Khrushchev accepted. The treaty was signed in Moscow on August 5, 1963, ratified by the U.S. Senate September 24, 1963, and entered into force October 10, 1963.[109] It prohibited the testing of any nuclear device, peaceful or weapon, in any environment except underground. If an underground test is conducted, radioactive debris may not leave the territorial borders of the state detonating the nuclear device. Signatories are not to permit, encourage, or assist another country in detonating a nuclear device in any of the prohibited environments. The treaty does not expire and permits any state to accede to it. One hundred and eight nations had signed by the end of 1963.

Kennedy and Khrushchev both wanted a comprehensive test ban treaty, but were only able to negotiate a limited one. Although they did not get a comprehensive treaty, the LTBT was not a failure. It was the first successful big step in cooperation between Washington and Moscow in preventing other countries from gaining nuclear weapons. The LTBT is only a modest treaty,[110] but it facilitated cooperative efforts between the superpowers. It became a symbol of their ability to overcome differences on nuclear matters and made pursuing a nuclear nonproliferation treaty in the future more of a reality.[111]

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[109]Dean Rusk, Sir Douglas Home, and Andrei Gromyko, "Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water ," *U.S. Department of State*, http://www.state.gov/t/ac/trt/4797.htm (accessed 30 July 2004). This paragraph summarized the main points contained in the treaty. For a complete listing of all signatories to the LTBT, please see the website.

[110]Michael Mandelbaum, *The Nuclear Question: The United States and Nuclear Weapons, 1946-1976* (Cambridge: Cambridge University Press, 1979), 186.

[111]Ibid., 188.

b. Nuclear Nonproliferation Treaty

Efforts to create a nuclear nonproliferation regime began in the 1950s by Ireland. The NPT is a modified and amended version of the Irish proposals and received unanimous support from the superpowers and the UN. Its purpose is threefold: to prevent nuclear proliferation, lead to eventual nuclear disarmament, and promote the peaceful use of atomic energy.[112]

Ireland submitted its first nonproliferation regime formula in 1958 calling on the nuclear powers not to supply nuclear weapons to other states during test ban negotiations.[113] The United States rejected it and Ireland submitted a second proposal calling for the nuclear nations not to hand over nuclear weapon control to non-nuclear nations; it received U.S. support but the Soviet Union abstained.[114] The plan was amended in 1960 and called for nuclear nations not to pass information to non-nuclear states about weapons manufacturing and in 1961, the UN unanimously adopted a revised Irish resolution that encompassed many of the previous amendments. Nuclear states were not to relinquish nuclear weapon control or give information about nuclear weapon manufacturing to non-nuclear states.[115]

In 1961, the United States began negotiations with the Soviet Union to make a nonproliferation agreement, but inflexibility on both sides caused the negotiations to stall.[116] The United States wanted the 1961 Irish formula wording to be the pattern for the agreement, but the Soviet Union objected because it would give the United States too much flexibility in arming West Europe with nuclear weapons through NATO or the MLF.[117] The Cuban Missile Crisis and especially the successful Chinese nuclear test breathed new life into their efforts. Tit for tat concessions (the United States gave up the MLF and the Soviet Union stopped objecting to previous U.S. nuclear agreements with

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[112]Federation of American Scientists, "Treaty on the Nonproliferation of Nuclear Weapons," *Federation of American Scientists,* http://www.fas.org/nuke/control/npt/text/npt2.htm (accessed August 2, 2004).

[113]Bunn, 64.

[114]Ibid., 65.

[115]Ibid.

[116]Ibid., 66.

[117]Ibid., 65.

NATO allies) smoothed out differences between the superpowers and negotiations succeeded. On July 1, 1968 the Treaty on the Nonproliferation of Nuclear Weapons was signed in Washington D.C.,[118] London, and Moscow, ratified by the U.S. Senate on November 24, 1969, and entered into force on March 5, 1970. The remainder of this section presents the highlights of the NPT.

The treaty recognizes two groups of states, those that have nuclear weapons and those that do not. Only five countries, the United States, Soviet Union, Great Britain, France, and China, are recognized as nuclear states since they went nuclear before January 1, 1967.[119] The NPT prohibits signatory nuclear states from transferring nuclear weapons, explosives, or control of nuclear weapons and explosives to non-nuclear states, nor are nuclear states to encourage non-nuclear states to develop these weapons.[120] Non-nuclear signatory states are not to accept transfer of, control of, or manufacturing information of nuclear weapons. Non-nuclear states must submit to inspections by the IAEA to verify peaceful atomic uses are not being diverted to nuclear weapons, while nuclear states are not subject to this inspection. The NPT does not restrict signatory states from pursuing peaceful nuclear research, and permits exchange of nuclear related material and knowledge for peaceful purposes. The overall objective of the NPT, aside from preventing nuclear proliferation, is to end the arms race and bring about complete nuclear disarmament. Regional treaties establishing nuclear free zones are permitted under the NPT. The treaty is open to all states, and must be renewed every five years (it was indefinitely extended in 1995). Member states must give three months notice if they decide to withdraw.

The NPT has the largest membership of any international arms control treaty. It is an unequal treaty that favors nuclear states and realizes the U.S. and Soviet goals of preventing other nations from acquiring the nuclear weapon.[121] It filled in the deficiencies of the LTBT which was intended to slow down, not prevent, proliferation. China's nuclear success, in spite of the LTBT, made a nonproliferation agreement more

[118]Federation of American Scientists.

[119]Ibid.

[120]Ibid. This paragraph summarizes the main points of the NPT as found on the Federation of American Scientists website. Please see the website for the complete treaty.

[121]Mandelbaum, 194.

urgent than ever before. The NPT has been successful at slowing down proliferation and has prevented the Pentagon's doomsday forecast of 10 or more countries going nuclear by 1970 from becoming reality.

C. CONCLUSION

The arms control era was a period of relaxing tensions as the superpowers placed the desire for nonproliferation cooperation above distrust for one another. They were able to do this for several reasons. First, the United States and Soviet Union had a mutual desire to end nuclear proliferation since it threatened their security. They learned unilateral efforts were not powerful enough to prevent other countries from developing nuclear weapons, and actually led to greater competition (arms race) and instability (Cuban Missile Crisis). They began to pursue bilateral and multilateral agreements to improve their security, and by so doing, began the initial steps of cooperation.

Second, the superpowers' resolve to cooperate was solidified by two key events: the Cuban Missile Crisis and the Chinese nuclear program. The Cuban Missile Crisis brought the superpowers to the brink of nuclear annihilation, and this near-war experience changed their perspective on cooperation. If they did not cooperate the next "missile crisis" might involve many more countries with much less restraint. China's nuclear proliferation was a common threat to the superpowers and its successful nuclear test was the final ingredient to push the superpowers to cooperate. They realized if China could develop a nuclear weapon, other underdeveloped countries would as well. The superpowers set aside distrust in matters of nuclear proliferation and negotiated the NPT.

Third, the Soviet Union achieved nuclear parity and balanced U.S. power. U.S. fears that Soviet aggressions would increase with parity never materialized. Tensions relaxed and mutual dependence forced the superpowers to cooperate with one another to improve their security. Through their mutual dependence, they began to view each other as equal partners in preventing proliferation and respect for each other grew.

The superpowers negotiated four arms control treaties and cooperated extensively in preventing nuclear proliferation during the arms control era. The critical events of the early 1960s made cooperation possible, and paved the way for collaborative efforts in preventing South Africa from testing a nuclear device. Although distrust lingered in their

relationship, after all it was still the Cold War, Washington and Moscow elevated nuclear nonproliferation cooperation to a higher priority. Their desire to cooperate would be severely challenged with the collapse of the Soviet Union; would they heed the lessons of the past and continue to cooperate, or once again pursue unilateral efforts?

IV. MIXED COOPERATION

A. INTRODUCTION

Confusion reigned and U.S. citizens stood in shock as terrorists carried out their attacks on September 11, 2001. The smoke had not dissipated before predictions of possible radiological or nuclear attacks on American cities filled the airwaves. How could these surreal predictions of nuclear or radiological armed terrorists come about? The Soviet Union had the world's largest nuclear stockpiles, and its collapse left them vulnerable to theft. Attempts to steal this nuclear material renewed fears of nuclear proliferation and possible radiological or nuclear attacks. The enlarging proliferation threat has prompted Washington to call for increased international cooperation in preventing the spread of nuclear weapons.

Although the United States and Russia pledged continued cooperation, the Soviet collapse has challenged their commitment. The balance of power shifted towards U.S. hegemony while Russia, contending with economic, political, and social problems, drifted off into the shadows. Nonproliferation is still important to Washington and Moscow, and both continue to support the NPT, yet some of their actions are questionable. Aside from helping China, Russia has always been a responsible nuclear power and not assisted other countries gain nuclear weapons. In the post-Cold war environment, however, Russia's desperate economic crisis has driven it to provide nuclear assistance to Iran and missile assistance to India and Iran. The United States unilaterally attacked Iraq to prevent it from proliferating nuclear weapons in spite of international and Russian protests against such action. This chapter assesses why Washington and Moscow have varied their nonproliferation efforts in the post-Cold War climate.

The background section discusses the effects the end of the Cold War has had on U.S.-Russian nonproliferation efforts. Three different sections will demonstrate the mix Washington and Moscow have employed, and the consequences they have had on nonproliferation. The chapter concludes that U.S.-Russian cooperative efforts have varied for the following reasons: 1) the balance of power shifted in favor of the United

States and it treated Russia as an unequal partner in nonproliferation. 2) Respect for each others' abilities decreased and distrust increased as unilateral efforts became more commonplace. 3) Russia's nonproliferation efforts took backseat to its political instability and economic meltdown concerns.[122]

B. BACKGROUND

Immediately following the Cold War, the perception of many U.S. leaders about nonproliferation changed. The main U.S. adversary of many decades had collapsed, and its nuclear threat was fading; the United States no longer needed to focus all of its energy on national security issues. Lacking a central threat, the U.S. enjoyed the post-Cold War peace dividends by shifting its national security focus from nonproliferation to other issues; the nonproliferation focus that remained was torn between multiple minor threats.[123] The respite from proliferation worries was short-lived as fears of unguarded Soviet nuclear stockpiles mounted in the United States.

Russia did not have as much time to enjoy the post-Cold War euphoria as the United States. The problems that destroyed the Soviet Union carried over to Russia, and its leaders were challenged with stabilizing the country. Russia watched its superpower status fade, and with it, its ability to balance rising U.S. power. Russia was still committed to nonproliferation, but it did not have the resources or infrastructure to contribute to the fight and what little resources it had were devoted to putting the country back on its feet.[124]

The U.S.-Russian nonproliferation priorities shifted as the international environment changed following the end of the Cold War. As it became apparent the threat of nuclear proliferation was not going away but increasing, the United States and Russia varied their cooperative efforts in combating this threat. The next section presents three different methods they used: cooperation, a cooperation mix, and non cooperation.

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[122]Walsh, 11.

[123]Walsh, 13.

[124]Ibid.

C. MIXED SIGNALS

1. Cooperation: Cooperative Threat Reduction Plan

The decreased ability of the Soviet Union to meet its arms control treaty obligations prompted the United States to offer its assistance.[125] Senators Sam Nunn and Richard Lugar proposed assisting the Soviet Union in securing and dismantling the nuclear stockpiles spread throughout the fallen Empire. They felt the minimally guarded nuclear stockpiles were "cookie-jars" for terrorists and nuclear proliferators to reach into and grab what they needed. Their efforts brought about the Soviet Nuclear Threat Reduction Act of 1991, renamed the Cooperative Threat Reduction (CTR) Program in 1993. It had two missions: safeguard and eliminate nuclear weapons in the former Soviet Union, and prevent proliferation.[126]

To fulfill its twofold mission, the CTR program identified three nuclear proliferation threats in the former Soviet Union.[127] First, there was inadequate protection, control, and accounting of nuclear weapons and material, as pictured in figure 1. Second, smuggling nuclear weapons and components was a real possibility. Third, the potential existed for weapons, nuclear components, and nuclear weapon knowledge to be transferred. To counter these threats two objectives were identified: 1) to establish "transportation, storage, safeguarding, and destruction of nuclear and other weapons," left in the former republics of the Soviet Union, and 2) assist in preventing weapons proliferation.

U.S.-Russian cooperative efforts expanded to Belarus, Kazakhstan, and Ukraine, which had renounced their nuclear weapons and announced plans to accede to the NPT. The CTR program assisted in transporting nuclear weapons and material from their territory back to Russia. Their efforts were highly successful with Belarus and Kazakhstan, but Ukraine caused some concern. In June 1993, Ukraine decided to keep

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[125]Jason Ellis, "Nunn-Lugar's Mid-Life Crisis," *Survival* 39, no. 1 (spring 1997).

[126]Defense Threat Reduction Agency, "Threat Reduction: History," *Defense Threat Reduction Agency,* http://www.dtra.mil/toolbox/directorates/ctr/history.cfm (accessed 6 August 2004).

[127] Nuclear Threat Initiative, "The Nunn-Lugar Cooperative Threat Reduction (CTR) Program," *Nuclear Threat Initiative,* http://www.nti.org/db/nisprofs/ukraine/forasst/ctr/overview.htm (accessed March 4, 2004). This paragraph summarized the three identified threats and two objectives located in the history section.

some nuclear weapons on its territory because of its struggling economy and security concerns with Russia.[128] Washington and Moscow worked together to relieve Ukraine of its concerns. Following their meeting, a trilateral statement was issued announcing Ukraine would denuclearize. Belarus, Kazakhstan, and Ukraine are now nuclear free and NPT signatories.[129]

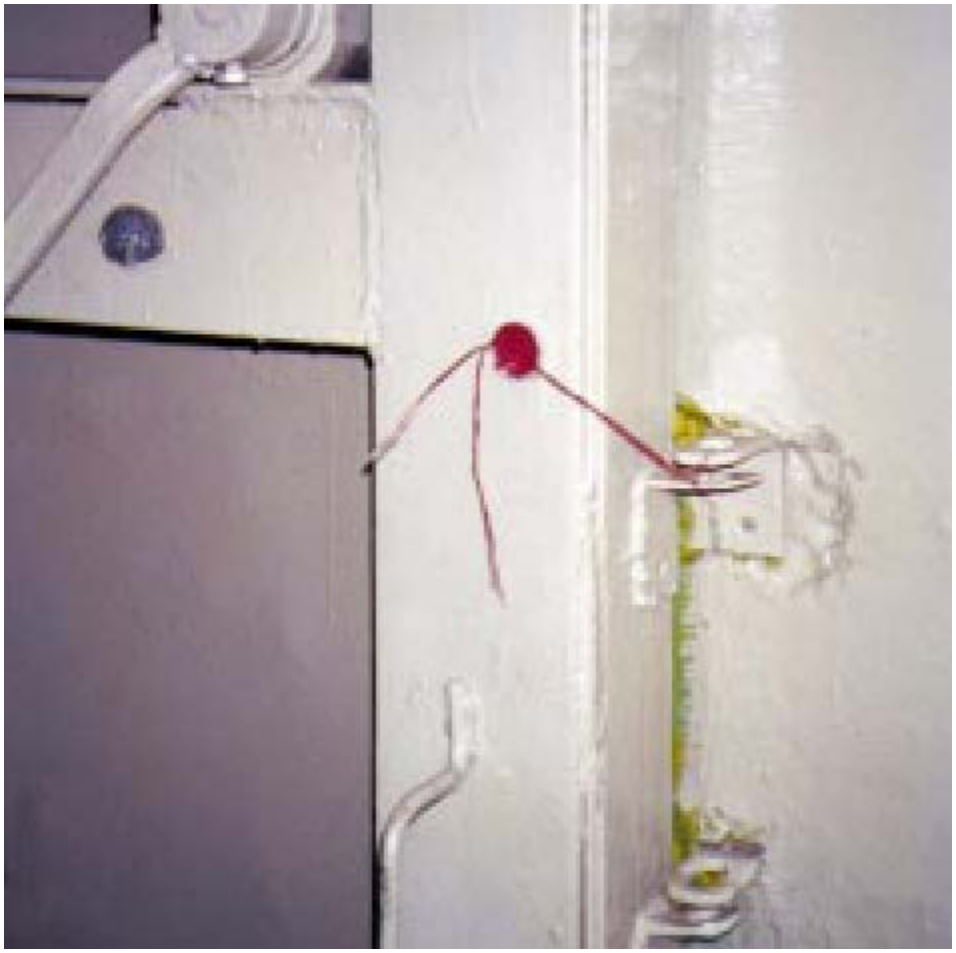

Figure 1. Soviet-era wax and string seal on nuclear material in Russia (From Department of Energy)

The CTR program's positive outcomes have benefited both countries. It improved U.S. security and reduced the potential threat it felt from Russian nuclear weapons. Cooperative actions also prevented the emergence of more nuclear powers,

[128]William H. Kincade, "Nuclear Weapons in Ukraine: Hollow Threat, Wasting Asset," *Arms Control Today* (July/August 1993): 13.

[129] Russian American Nuclear Security Advisory Council, "A Short History of Threat Reduction," *Russian American Nuclear Security Advisory Council* http://www.ransac.org/Projects%20and%20Publications/News/Fast%20Fracts/612200385520AM.html (accessed 8 March 2004).

along Russia's borders, by bringing Belarus, Kazakhstan, and Ukraine into compliance with international nonproliferation regimes. CTR permitted Russia to fulfill its arms control treaty obligations and has provided much needed security for Russian nuclear stockpiles.

2. Fence-Sitting: Missile Proliferation & PSI

U.S. leaders were concerned with Russian actions that were promoting proliferation. Washington addressed this concern by negotiating with Moscow in 1993, to cease missile assistance to India. Washington feared Russian technology transfers could extend the range of India's rockets, enabling it to strike further with its nuclear weapons.[130] Yeltsin agreed to U.S. demands, but Moscow did not keep its promise. It continued to transfer missile technology and provided Indian scientists rocket launch integration training from one of its leading space launch firms.[131] Russia, confronted with this breech of agreement, promised to limit its missile technology exports and joined the Missile Technology Control Regime (MTCR) in 1995, but this did not stop its treaty violations.

In 1997, Israeli intelligence notified U.S. leaders of a Russian export deal with Iran. The Israelis revealed Russia had become the main contractor to develop the Iranian Shahab-4 missile and had transferred "technicians, wind tunnels, missile test stands, guidance systems, and Russian SS-4 strategic rockets" to Iran.[132] Russian activities were direct violations of the MTCR. Congress attempted to sanction Russia, but Clinton, in the name of nonproliferation cooperation, vetoed the sanction legislation.[133] A more recent example involves the Proliferation Security Initiative (PSI).

The terror strikes of September 11, 2001, heightened fears the next attack might involve WMD. U.S. leaders felts additional actions were needed to minimize the nuclear proliferation threat and introduced the PSI. President Bush announced it on May 31,

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[130]Margaret Tutwiller, *Russian Sale of Rocket Engine to India* (Washington, D.C.: *U.S. Department of State*, Office of the Assistant Secretary of State for Public Affairs, May 11, 1992).

[131]Henry D. Sokolski, *Best of Intentions: America's Campaign Against Strategic Weapons Proliferation* (Westport, Connecticut: Praeger, 2001), 76-77.

[132]Ibid., 78.

[133]Ibid.

2003, in Krakow, Poland. The PSI is intended to "stop shipments of weapons of mass destruction (WMD), their delivery systems, and related materials worldwide,"[134] through interdiction. This proactive program operates within the bounds of international law and is designed to work in coordination with existing nonproliferation regimes[135] to prevent states and non-state actors from acquiring WMD. Any state may endorse the principles of the PSI and participate in its activities. The PSI currently has fifteen core members and over sixty countries agreeing to its principles and participating in its nonproliferation activities.

While Russia remained committed to nonproliferation and stated it has no objections to WMD interdictions,[136] it withheld support while it studied the initiative. Russian leaders expressed reservations that international commerce could be threatened by the PSI's interdiction activities, and that the U.S. Navy would be given unprecedented powers to act as international policeman.[137] While other nations agreed to the principles of the PSI, Russia sat on the sidelines contemplating PSI's implications and whether to support it. Russia is still a powerful actor in world affairs, and U.S. leaders viewed its support as critical to PSI's success, but were prepared to take whatever action necessary to prevent proliferation. One year after President Bush announced the PSI, Russia became one of the core participants. It has stated its participation is contingent upon PSI activities not violating international and national laws.[138]

Russia is party to the MTCR regime, yet violated the very precepts this regime espoused by exporting missile technology to India and training its scientists. It also waffled on supporting the PSI. Russia's support for nonproliferation on one hand and efforts that could lead to proliferation on the other send mixed signals to the international community about it commitment to nonproliferation.

[134]Bureau of Nonproliferation, "The Proliferation Security Initiative," *U.S. Department of State*, http://www.state.gov/t/np/rls/other/34726.htm (accessed August 6, 2004).

[135]Bureau of Nonproliferation, "Proliferation Security Initiative Frequently Asked Questions (FAQ)," *U.S. Department of State*, http://www.state.gov/t/np/rls/fs/32725.htm (accessed August 6, 2004).

[136]Wade Boese, "The New Proliferation Security Initiative: an interview with John Bolton," *Arms Control Association*, http://www.armscontrol.org/aca/midmonth/November/Bolton.asp (accessed 6 August 2004).

[137]Andrew Prosser, Herbert Scoville, Jr., "The Proliferation Security Initiative in Perspective," *Center for Defense Information*, http://www.cdi.org/pdfs/psi.pdf (accessed August 6, 2004).

[138]Ibid.

3. No Cooperation: Iraq and Iran

The first example of no cooperation is the U.S. war against Iraq. The Bush administration accused Saddam Hussein of hiding WMD from UN weapons inspectors, and declared it was time to take action. President Bush felt Hussein had delayed opening his country to thorough UN inspections long enough. His administration laid out its case for a UN resolution authorizing war against Iraq and presented evidence linking Hussein and Al-Qaeda. Washington feared if action was delayed any longer, the probability of terrorist attacks against the United States would increase, perhaps with Iraqi WMD. Russia said it would veto the resolution if it were brought to a vote, and indicated it felt UN inspections were working and Baghdad was dismantling its weapons. It warned against U.S. unilateral actions saying they would violate international law.[139] The United States failed to get the resolution, and despite warnings from Russia not to act unilaterally, exercised its self-proclaimed right of preemption and attacked Iraq.

The Iraq War demonstrated the willingness of the United States to prevent proliferation by acting unilaterally, amidst protestation from the international community. Its national security trumped bilateral and multilateral consensus. Undeterred by Russian opposition, the United States acted on intelligence reports, now known to be faulty, and attacked Iraq to forcefully disarm it.

Russia opposed the Iraqi war for two reasons: first it needed to protect its economy and second it needed to stand up to a growing U.S. power. Russian leaders were afraid a U.S. war on Iraq would further cripple its fragile economy. Aleksei Arbatov, member of the Russian Parliament, said Iraq has acknowledged it owes Russia nearly eight million dollars, and a new U.S installed regime might not honor the debt.[140] Russia's economy is heavily dependent upon its oil industry and its leaders feared a new Iraqi regime might flood the market with oil and drive prices down,[141] so no matter how

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[139]Anna Badkhen, "Russia weighs allies amid weak economy: War against Iraq would mean losing right to invest in oil fields," *San Francisco Chronicle*, http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2003/03/11/MN57303.DTL (accessed August 6, 2004).

[140]Sabrina Tavernise, "Oil Prize, Past and Present, Ties Russia to Iraq ," *Global Policy Forum*, http://www.globalpolicy.org/security/oil/2002/1017russia.htm (accessed 9 August 2004).

[141]Ibid.

Washington tried to sweet talk Moscow, it could not provide enough financial incentive to vote for a resolution authorizing war against Iraq.

The second example of no cooperation is Russian nuclear assistance to Iran. Russia agreed to assist Iran in rebuilding two nuclear reactors initially built by Germany and damaged during the Iraq-Iran war.[142] The United States became very suspicious of this agreement, and became even more so after President Bush labeled Iran as an "axis of evil," during his 2002 State of the Union Address.[143] The United States suspected Iran was attempting to develop nuclear weapons with Russian assistance and condemned their actions. Russia declared it was assisting Iran in "exclusively peaceful, civilian goals," and U.S. accusations were preposterous.[144] Russia convinced Iran to accept IAEA inspections to verify the reactors were not being used for nuclear weapons development. In August 2003, the IAEA found traces of highly enriched uranium, a key component for nuclear weapons, and since then, it has documented further violations and noted that Iran has not been meeting its NPT obligations.[145] To further bolster U.S. accusations, Iran recently said the world should accept it into the nuclear club.[146] Washington continues to insist Moscow end its cooperation with Iran to prevent it from going nuclear. While Moscow maintains its assistance is for peaceful purposes, its opinion has begun to change as recent revelations about Iran's intentions and concerns about its nuclear end goals have surfaced.[147]

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[142]American University, "The Economic and Ecological Assessment of Iranian-Russian Nuclear Technology Trade," *American University,* http://www.american.edu/TED/irannuke.htm (accessed 7 August 2004).

[143]President George W. Bush, "The President's State of the Union Address ," *The White House*, http://www.whitehouse.gov/news/releases/2002/01/20020129-11.html (accessed 7 August 2004).

[144]Embassy of the Russian Federation, "Russian-Iranian Cooperation Pursues only Peaceful, Civilian Goals," *Federation of American Scientists*, http://www.fas.org/news/russia/1998/pr3_5.html (accessed 7 August 2004).

[145]John Pike, "Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran, Report of the International Atomic Energy Agency, June 2004," *Federation of American Scientists*, http://www.fas.org/nuke/guide/iran/nuke/index.html (accessed 7 August 2004).

[146]Associated Press, "Iran Wants to Be Part of 'Nuclear Club'," *Foxnews.com*, http://www.foxnews.com/story/0,2933,122526,00.html (accessed 7 August 2004).

[147]Rebecca Santana, "Iran Deal makes Russia Uneasy: Nuclear Program offers Benefits, but also Risks ," *The Atlanta Journal-Constitution*, http://www.ajc.com/news/content/news/0603/15russiairan.html (accessed 7 August 2004).

The U.S. relationship with Iran has been troublesome since its embassy in Tehran was stormed in the late 1970s. News of Russia's nuclear assistance to Iran brought immediate condemnation from the United States. It placed no faith in Iran's promise that the reactors were only for peaceful purposes. The United States remembers too well that it's Atoms for Peace program was instrumental in providing India with nuclear capability, and does not want another nuclear power to emerge through "peaceful programs." IAEA revelations that Iran has not been completely honest and has produced highly enriched uranium has only increased U.S. opposition to Russian help.

Russian nuclear assistance is based upon economic, not nonproliferation, policies. The Soviet Union was a major exporter of military goods during the Cold War, and Russia inherited much of this military production infrastructure. Russia's declining economy, international political power, and military strength took its toll on Russian foreign sales. Unwilling to lose more business, Russia instituted a risky policy of providing nuclear assistance to Iran. Russia's actions risked damaging the cooperation it had spent years learning with the United States, but the perceived payoff was worth it.

D. CONCLUSION

The U.S.-Russian mix of cooperative and uncooperative efforts to combat proliferation came about because the new post-Cold War environment challenged their willingness to cooperate. These challenges include: a balance of power shift in favor of the United States, decreasing respect and reemergence of distrust in their relationship, and Russia's internal problems. The end of the Cold War saw the balance of power shift in favor of the United States as its global power grew, while Russia's economic, political, and social problems weakened it. The superpowers had only managed to subdue their distrust during the arms control era, not eliminate it, and in the post-Cold War era it emerged again. As distrust increased and U.S. power grew, Washington began to treat Moscow as an unequal partner in nonproliferation.

The United States and Russia have varied their efforts in fighting proliferation based upon their interests. The CTR program was beneficial to both Washington and Moscow because they realized the payoffs of working together were greater than the drawbacks. Through their efforts, former Soviet nuclear stockpiles have been relocated

to Russia and are more secure, nuclear weapons have been dismantled, and nuclear arms control treaties have been honored.

When the benefits of supporting the United States are not entirely obvious, Moscow plays both sides of the fence. U.S. leadership viewed the MTCR as a vital element in preventing proliferation and made every effort to get Russia to join. Russia was assisting India with missile technology, and U.S. leaders believed that convincing Russia to join would lower the risk of proliferation. Russia did become a member, but has violated the treaty on numerous occasions by providing assistance to India and Iran for economic reasons. Russia also wobbled on supporting the U.S. PSI program, but after a year finally endorsed its principles.

Washington and Moscow have also acted against the wishes of the other. U.S. leadership has repeatedly warned Moscow to cease its nuclear efforts with Iran, but Moscow has so far refused. In like manner, Washington ignored the threat of a Russian Security Council veto and acted unilaterally by waging war against Iraq.

Washington and Moscow reshuffled their priorities following the end of the Cold War to enjoy the peace dividend. The threat of nuclear war and proliferation seemingly disappeared in the excitement of the Cold War's end, and nonproliferation activities were put on the backburner. As the end of the Cold War exhilaration wore off, the United States and Russia realized that the proliferation threat was increasing. Washington elevated the importance of nonproliferation, but Moscow, too tangled up in its internal problems, was not able to do the same. Russian leaders realized the limited resources available were more valuable for stabilizing the country than combating nuclear proliferation with the United States, therefore nonproliferation efforts took the backseat to its political instability and economic meltdown concerns

These challenges have made it difficult for Washington and Moscow to unite their nonproliferation efforts. Distrust has been elevated above their proliferation concerns, and they have chosen to use a mix of cooperative efforts. The mixed signals from the United States and Russia are not beneficial in preventing proliferation. Their nonproliferation commitment is questioned, distrust is increased, and fence-sitters are more apt to pursue nuclear proliferation.

V. CONCLUSION

A. INTRODUCTION

Nuclear proliferation has always been a concern for the United States and Russia, but increasing terrorist attacks, and the prospect of rouge states getting weapons of mass destruction, have made this one of the most pressing issues to be resolved. Efforts to prevent nuclear proliferation began with the atomic age and continue to this day. Nonproliferation policies have ranged from secrecy and unilateral control to cooperation, with internationally cooperative arms controls efforts (such as the NPT) being the most successful prevention. This chapter summarizes the research findings, answers why the United States and Russia are using a mix of cooperative and uncooperative efforts, and offers policy recommendations the United States can adopt to increase the chance of cooperation with Russia.

B. WHY MIXED COOPERATION

The collapse of the Soviet Union challenged U.S.-Russian cooperation by shifting the balance of power in favor of the United States, decreasing respect and increasing distrust, and weighing Russia down with internal problems. These challenges have led to a mix of cooperative and uncooperative efforts between the United States and Russia. The historical survey uncovered the following reasons for mixed cooperation. First, distrust between the United States and Russia has increased in the post-Cold War environment. Unilateral actions taken by the United States in Iraq and Russian actions in Iran have increased suspicion of the other's actions. Cooperation is dependent on trust and once that is lost in any degree, cooperation crumbles.

Second, the United States and Russia no longer view one another as equal partners in nonproliferation. The U.S. hegemony and the plague of Russian problems have diminished one's opinions of the other. Respect and reciprocity are used less often and result in both judging each others' actions unfairly. Russia suspects many U.S. actions as an attempt to grab more power, while the United States views Russia's diminished ability to contribute as a lack of commitment.

Third, not enough effort is made to cooperate. Unilateral efforts are becoming more commonplace in the post-Cold War era because they require less coordination, negotiation, and international support. For these reasons, the United States and Russia have found it easier to take unilateral actions to bolster their security than to seek for cooperative assistance. Unilateral actions generally have immediate positive short-term gains, but rarely are they in the best interest of cooperative long-term solutions.

Fourth, willingness to discover concerns and make concessions to resolve them is not as important as it once was. During the arms control era the superpowers were willing seek out the other's concern and make concessions to alleviate them, if possible. While attempts have been made in the post-Cold War environment, they have been feeble. Russia has genuine economic and political concerns that will take years of effort to resolve. The few resources it has are dedicated to addressing their concerns, with little left over for nonproliferation efforts. While the United States cannot make these problems disappear, it can make a greater effort to understand and alleviate them. The United States does have the power to act on its own, but not every action it takes is to grab more power, as Russia feels. The September 11, 2001 attacks on the United States have made it more determined to prevent proliferation, and quick, decisive unilateral actions are one way to assure its security. Moscow must understand Washington's desire to protect its citizens is not about gaining more power in the process.

Last, self-interest has become a key factor in determining whether the United States and Russia will cooperate. If it is in their best interest, cooperation will result. However, if one views the problem as benign, cooperation will be very difficult to achieve.

C. SUMMARY OF FINDINGS

1. Uncooperative Unilateral Policies Fail

Washington and Moscow adopted unilateral policies in the infancy of the atomic age which embraced secrecy and unilateral restriction as key nonproliferation components. The U.S. Congress furiously guarded the U.S. monopoly on nuclear weaponry and knowledge by designing a policy to prevent other nations, mainly the Soviet Union, from gaining the nuclear weapon. The policy's fallacy was exposed in

August 1949 with a successful Soviet nuclear detonation. The uncooperative policies and unilateral actions also failed to prevent the nuclear club from expanding as Britain, France, and China developed and tested their nuclear weapons.

Recently the United States accused Iraq of producing WMD and attempting to start its nuclear research program again. Failing to gain international support, and against the protests of Russia, the United States attacked Iraq to prevent it from proliferating more WMD. The international community has responded to the aggressive U.S. policy by slowly acknowledging U.S. requests for help in stabilizing Iraq. Although the U.S. acted to improve it national security against a perceived Iraqi threat, it is paying the price for acting unilaterally and uncooperatively with the rest of the international community. The Iraq war confirmed Russian fears that a growing U.S. hegemony had bred an aggressive world power, undeterred by international opposition. It felt the United States had devalued its relationship and as a result future cooperative actions will be more difficult to build.

Russia, desperately in need of an economic boost, agreed to rebuild two of Iran's destroyed nuclear reactors. It continues to reject U.S. accusations that Iran is secretly trying to gain nuclear weapons and refuses to acquiesce to U.S. demands to stop nuclear assistance. Russia and Iran have stated the reactors are for peaceful civilian purposes and pose no threat to the international community. IAEA inspections revealed Iran had secretly enriched uranium, and recently Iran announced the world should accept it into the nuclear club. The IAEA findings and Iran's announcement confirmed U.S. suspicions and it has stepped up its pressure on Russia. Washington views Russian actions as counterproductive to nonproliferation efforts, and questions its dedication.

Uncooperative and unilateral actions have deepened the existing distrust between Washington and Moscow. The U.S.-Russia relationship has been plagued by mistrust in the past and recent actions by both countries are slowly chipping away at the foundation of cooperation that took many years to build. Although unilateral actions may provide short-term benefits, the long-term effects on cooperation are rarely worth the costs incurred. Unilateral and uncooperative efforts will fail to stop proliferation; history is

replete with examples that prove these actions breed competition and instability: two key ingredients to nuclear proliferation.

2. Mixed Cooperation Will Ultimately Fail

Mixed cooperation has not been much of a concern until the post-Cold War era. The Cold War escalation era was dominated by uncooperative policies and the arms control era was dominated by cooperative policies. The post-Cold War era is a mix the two with consequences that are not yet fully understood.

The CTR program has been the most productive and successful post-Cold War nonproliferation endeavor, but uncooperative actions (e.g. Russian assistance to India and Iran and the U.S. war against Iraq), have detracted from the gains. The PSI has enjoyed a growing list of supporters since it was first announced in 2003, but Russia withheld its support fearing it would give more power to the United States; its actions could be interpreted that checking U.S. power was more important than sending a unified message against proliferation. Fortunately cooperation prevailed and Russia endorsed the PSI principles and become a core participant.

While Washington-Moscow cooperative actions have been relatively successful at deterring proliferation, their unilateral actions have not. Mixed cooperation does not send a strong unified U.S.-Russian signal that nuclear proliferation will be punished, rather it may lead to a tit for tat exchange between the United States and Russia. Fence-sitters feel less threatened from mixed signals and more willing to attempt nuclear proliferation. Additionally, mixed cooperative actions reduce trust and make designing future united efforts more challenging. Mixed cooperation will not prevent nuclear proliferation. If Washington and Moscow continue using it, their cooperative efforts of years past will fail because they will concern themselves more with the other's actions than nonproliferation.

3. Cooperative Actions are the Most Successful

The arms control era produced the greatest advances in stopping nuclear proliferation. Washington and Moscow realized they were dependent on each other's assistance and good conduct for their security. Although an element of distrust lingered in their relationship, the threat of a nuclear China, and potentially many other nuclear

powers, drove them to work together. The process of fighting nuclear proliferation together promoted the development of respect and reciprocity in their relationship, which led to successful cooperative efforts.

The initial nonproliferation steps were small but instrumental in promoting cooperation. The LTBT was negotiated after both sides failed to produce a comprehensive test ban treaty. Its limitations and the threat of ten or more new nuclear powers by 1970, spurred the superpowers into negotiating the NPT. Their united efforts prevented the Pentagon's worst-case nuclear proliferation forecast from materializing. Other arms control treaties were negotiated and entered into that further reduced the global nuclear threat and improved U.S.-Soviet relations and cooperation.

The first case of successfully cooperating to stop nuclear proliferation was West Germany. The openly aggressive Soviet attitude towards the West resulted from its fear of potential West German nuclear proliferation. The Cuban Missile Crisis impressed upon both superpowers the importance of concessions and cooperation. The arms control era began with the agreement not to permit West Germany to gain nuclear weapons. Although South Africa did not give up its nuclear capability until the 1990s, Washington and Moscow were unified in pressuring it not to test nuclear weapons in 1977. After the collapse of the Soviet Union, the Ukraine threatened to keep the nuclear weapon arsenal it inherited, but was convinced by U.S.-Russian pressure to give them up and accede to the NPT. Cooperative efforts between the United States and Russia have had the greatest success at preventing nuclear proliferation.

D. RECOMMENDATIONS

The historical survey has shown that U.S.-Russian cooperative efforts are absolutely essential for successfully retarding nuclear proliferation. Unilateral efforts are counterproductive, breed mistrust, and further hamper future cooperation. Additionally, U.S. and Russian unilateral efforts in the past have failed to prevent nuclear proliferation and will not be as successful today. Although Russia has lost its superpower status, it still wields a great amount of power in international politics and is able to work and

negotiate with countries that will not deal with the United States. The United States need to adjust its attitude about the value of Russian assistance if it expects to prevent the spread of nuclear weapons.

The United States can enhance the chance of cooperative efforts by rebuilding its relationship with and viewing Russia as an equal partner. Unequal treatment has led to a loss of respect and diminished reciprocity, and recent actions demonstrate this has occurred in U.S.-Russian relations as opinions were cast aside, warnings were not heeded, and internal fears were ignored. Treating each other as equal partners does not mean differences will be overcome or cooperation will always be achieved, but it will improve the chances.

Russia has endured a tumultuous existence since it re-emerged from the Soviet Union, including an economic meltdown and political instability. The United States may not be able to provide the financial incentives for Russia to sever ties with questionable countries, but it can gain a greater understanding of Russia's problems. Gaining a greater respect of Russia and its concerns will provide the United States valuable insights into how to increase it chances in winning Russian cooperation.

The United States must develop a stronger political commitment and make a more concerted effort in gaining Russian cooperation. Cooperation, unlike unilateral actions, is challenging and requires a great amount of patience and persistence to obtain. It took a brush with nuclear war to teach the United States and Soviet Union how to cooperate in 1962. The U.S-Russian relationship is much friendlier today than it was back then, so another nuclear crisis is not needed to establish cooperation, but a strong desire is. Efforts to win Russian cooperation will take time and can be full of frustration, but long term benefits favor a successful cooperative campaign against nuclear proliferation.

Coordination must be improved to win the war against nuclear proliferation. South Africa and Ukraine are great examples of the success coordinated efforts can produce. They prevented misunderstandings from arising, increased the chance of mission success, and convinced South Africa and Ukraine to back away from nuclear weapons.

Russia needs to be more forthcoming and transparent in the CTR program. U.S. leaders have repeatedly voiced concern that Russia has prevented CTR from being as effective and successful as it could be. Access to certain sites, including Russia's nuclear cities has been denied or limited to U.S. CTR contractors. By opening these sites and allowing CTR to accomplish its mandate, Russia's commitment to nonproliferation would be strengthened from the U.S. point of view.

Russia should also back away from nuclear assistance to Iran. The IAEA has questioned many of Iran's nuclear activities, yet Russia continues to support and defend Iran's nuclear program. The United States is not the only country to express concern. The European Union has drafted a resolution calling for Iran to suspend its enrichment activities.[148] The international community is questioning Iran's real nuclear intent, yet Russia continues to assist Iran. By withdrawing its nuclear support, Russia may provide the necessary pressure for Iran to come clean about its nuclear plans, and step away from it enrichment activities.

Moscow will not agree with every proliferation threat Washington identifies, and the United States must accept that. This means U.S. and Russian leadership must prioritize the proliferation threats and seek assistance from each other on the threats they have in common and the ones they have defined as the most serious cases. Two serious cases for the United States are Iran and North Korea. Without Russian assistance, especially in these cases, the United States will find it nearly impossible to defeat the proliferation problem. Nonproliferation success has only come when the two have cooperated and has failed when they have not. Cooperation will not be obtained for every threat, but when it is the outcome favors a higher degree of success in preventing nuclear proliferation.

[148] Tehran Times Political Desk, "Text of EU Draft Resolution on Iran's Nuclear Program," *Tehrantimes.com*, http://www.tehrantimes.com/Description.asp?Da=9/15/2004&Cat=2&Num=005, (accessed 14 September 2004).

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BIBLIOGRAPHY

Acheson, Dean. *Present at the Creation*. New York: Norton, 1969.

American University. "The Economic and Ecological Assessment of Iranian-Russian Nuclear Technology Trade." *American University*. http://www.american.edu/TED/irannuke.htm. [7 August 2004].

Associated Press. "Iran Wants to Be Part of 'Nuclear Club'." *Foxnews.com*. http://www.foxnews.com/story/0,2933,122526,00.html. [7 August 2004].

Badkhen, Anna. "Russia weighs allies amid weak economy: War against Iraq would mean losing right to invest in oil fields." *San Francisco Chronicle*. http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2003/03/11/MN57303.DTL. [6 August 2004].

Blacker, Coit D., and Gloria Duffy. *International Arms Control: Issues and Agreements*. Stanford, California: Stanford University Press, 1984.

Boese, Wade. "Proliferation Security Initiative Advances – but Russia and China Keep Their Distance." *Arms Control Association*. http://www.armscontrol.org/act/2004_03/PSI.asp. [28 July 2004].

_____. "The New Proliferation Security Initiative: an interview with John Bolton." *Arms Control Association*. http://www.armscontrol.org/aca/midmonth/November/Bolton.asp. [6 August 2004].

Botti, Timothy J. The *Long Wait: The Forging of the Anglo-American Nuclear Alliance, 1945-1958*. New York: Greenwood Press, 1967.

Bunn, Matthew and George Bunn. "Reducing the Threat of Nuclear Theft and Sabotage," Conference Proceedings, Symposium on International Safeguards: Verification and Nuclear Material Security. Vienna, Austria, October 29 – November 2, 2001. International Atomic Energy Agency, 2001.

Bunn, George. *Arms Control by Committee: Managing Negotiations with the Russians*. Stanford, California: Stanford University Press, 1992.

Bureau of Nonproliferation. "Proliferation Security Initiative Frequently Asked Questions (FAQ)." *U.S. Department of State*. http://www.state.gov/t/np/rls/fs/32725.htm. [6 August 2004].

_____. "The Proliferation Security Initiative." *U.S. Department of State*. http://www.state.gov/t/np/rls/other/34726.htm. [6 August 2004].

Burr, William, and Jeffrey T. Richelson. "A Chinese Puzzle." *Bulletin of the Atomic Scientists*. http://www.thebulletin.org/issues/1997/ja97/ja97richelson.html. [26 August 2004].

Clausen, Peter A. *Nonproliferation and the National Interest: America's Response to the Spread of Nuclear Weapons*. New York, New York: HarperCollins College Publishers, 1993.

Collina, Tom, and Jon Wolfsthal. "Nuclear Terrorism and Warhead Control in Russia." *Arms Control Association*. http://www.armscontrol.org/act/2002_04/colwolfapril02.asp. [6 August 2004].

Cousins, Norman. "Notes on a 1963 Visit with Khrushchev." *Saturday Review*, 7 November 1964.

Curtis, Charles B. "Issues Facing the Global Nonproliferation Regime." *Nuclear Threat Initiative*. http://www.nti.org/c_press/c1_speeches.html#nunnceip2004. [16 August 2004].

Defense Threat Reduction Agency. "Threat Reduction: History." *Defense Threat Reduction Agency.* http://www.dtra.mil/toolbox/directorates/ctr/history.cfm. [6 August 2004].

Department of Energy. "MPC&A Program Strategic Plan." *Carnegie Endowment for International Peace*. http://www.ceip.org/files/projects/npp/pdf/mpcaplan.pdf. [18 August 2004].

Edwards, Gordon. Canada's Role in the Atomic Bomb Programs of the United States, Britain, France and India: A Chronology. *Canadian Coalition for Nuclear Responsibility.* http://www.ccnr.org/chronology.html. [4 May 2004].

Efremov, Aleksandr E. *Nuclear Disarmament*. Translated by Boris Belitsky and Yuri Shirokov. Moscow: Progress Publishers, 1979.

Eisenhower, Dwight D. "Atoms for Peace: Address by Mr. Dwight D. Eisenhower, President of the United States of America, to the 470th Plenary Meeting of the United Nations General Assembly." *IAEA.org*. http://www.iaea.org/About/history_speech.html. [15 August 2004].

Eisenstadt, Michael. "Russian Arms and Technology Transfers to Iran: Policy Challenges for the United States." *Arms Control Association*. http://www.armscontrol.org/act/2001_03/eisenstadt.asp. [28 July 2004].

Ellis, Jason. "Nunn-Lugar's Mid-Life Crisis." *Survival* 39, no. 1 (spring 1997): 84-111.

Embassy of the Russian Federation. "Russian-Iranian Cooperation Pursues only Peaceful, Civilian Goals." *Federation of American Scientists*. http://www.fas.org/news/russia/1998/pr3_5.html. [7 August 2004].

Federation of American Scientists. "Treaty on the Nonproliferation of Nuclear Weapons." *Federation of American Scientists.* http://www.fas.org/nuke/control/npt/text/npt2.htm. [2 August 2004].

Fischer, David. "History of the International Atomic Energy Agency: The First Forty Years." *IAEA.org*. http://www.pub.iaea.org/MTCD/publications/PDF/Pub1032_web.pdf. [31 August 2004].

Foran, Virginia I. *Nuclear Nonproliferation, 1945-1991: Guide and Index*. Vol. 1. Alexandria, Virginia: Chadwyck-Healey, 1992.

Freedman, Lawrence. *The Evolution of Nuclear Strategy*. London: Palgrave Macmillan, 2003.

George, Alexander L., Philip J. Farley, and Alexander Dallin. *U.S.-Soviet Security Cooperation: Achievements, Failures, Lessons*. New York: Oxford University Press, 1988.

Gittings, John. *Survery of the Sino-Soviet Dispute: A Commentary and Extracts from the Recent Polemic 1963-1967*. London, New York, Toronto: Oxford University Press, 1968.

Hewlett, Richard G., and Oscar E. Anderson Jr. *A History of the United States Atomic Energy Commission: The New World, 1939-1946*. Vol. 1. University Park, Pennsylvania: The Pennsylvania State University Press, 1962.

Holloway, David. *Stalin and the Bomb*. New Haven & London: Yale University Press, 1994.

Jervis, Robert. "Cooperation under the Security Dilemma." *World Politics* 30, no. 2 (January 1978): 167-214.

Khrushchev, Nikita S. *Khrushchev Remembers: The Last Testament*. Translated and edited by Strobe Talbott. Boston, Toronto: Little, Brown and Company, 1974.

Kincade, William H. "Nuclear Weapons in Ukraine: Hollow Threat, Wasting Asset." *Arms Control Today* (July/August 1993): 13-18.

Lambeth, Benjamin S. "Nuclear Proliferation and Soviet Arms Control Policy." *Orbis* (summer 1970): 298-323.

Mandelbaum, Michael. *The Nuclear Question: The United States and Nuclear Weapons, 1946-1976*. Cambridge: Cambridge University Press, 1979.

Miller, Benjamin. *When Opponents Cooperate: Great Power Conflict and Collaboration in World Politics*. Michigan: University of Michigan Press, 1995.

National Research Council. *Proliferation Concerns: Assessing U.S. Efforts to Help Contain Nuclear and other Dangerous Materials and Technologies in the Former Soviet Union*. Washington D.C.: National Academy Press, 1997.

Nuclear Threat Initiative. "China's Nuclear Weapon Development, Modernization and Testing." *Nuclear Threat Initiative.* http://www.nti.org/db/china/wnwmdat.htm. [26 August 2004].

_____. "Country Information." *Nuclear Threat Initiative.*. http://www.nti.org/e_research/profiles/index.html. [28 July 2004].

_____. "The Nunn-Lugar Cooperative Threat Reduction (CTR) Program." *Nuclear Threat Initiative.* http://www.nti.org/db/nisprofs/ukraine/forasst/ctr/overview.htm. [4 March 2004].

Nuclearfiles.org. Quebec Agreement August 19, 1943. *Nuclearfiles.org* http://www.nuclearfiles.org/redocuments/1943/430819-quebec.html. [28 July 2004].

Nye Jr., Joseph S. "U.S.-Soviet Cooperation in a Nonproliferation Regime." in *U.S.-Soviet Security Cooperation: Achievements, Failures, Lessons*. Edited by Alexander L. George, Philip J. Farley, and Alexander Dalling. New York: Oxford University Press, 1988.

Physicians for Social Responsibility, "A History of the Comprehensive Test Ban Treaty," *Physicians for Social Responsibility*, http://www.psr.org/home.cfm?id=non_proliferation12, [14 September 2004].

Pike, John. "Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran, Report of the International Atomic Energy Agency, June 2004." *Federation of American Scientists*. http://www.fas.org/nuke/guide/iran/nuke/index.html. [7 August 2004].

President George W. Bush "National Security Strategy." *The White House*. http://www.whitehouse.gov/nsc/nssall.html. [1 August 2004].

_____. "The President's State of the Union Address ." *The White House*. http://www.whitehouse.gov/news/releases/2002/01/20020129-11.html. [7 August 2004].

Prosser, Andrew, and Herbert Scoville, Jr. "The Proliferation Security Initiative in Perspective." *Center for Defense Information*. http://www.cdi.org/pdfs/psi.pdf. [6 August 2004].

Reiss, Mitchell. *Bridled Ambition: Why Countries Constrain Their Nuclear Capabilities*. Washington D.C.: The Woodrow Wilson Center Press, 1995.

Reuters. “Russia joins Bush's drive against WMDs” *Gazeta*. http://www.gazeta.ru/cgi-bin/newsarc.cgi. [4 June 2004].

Rusk, Dean, Sir Douglas Home, and Andrei Gromyko. “Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water .” http://www.state.gov/t/ac/trt/4797.htm. [23 July 2004].

Russian American Nuclear Security Advisory Council. “A Short History of Threat Reduction.” *Russian American Nuclear Security Advisory Council.* http://www.ransac.org/Projects%20and%20Publications/News/Fast%20Fracts/612200385520AM.html. [8 March 2004].

Santana, Rebecca. “Iran Deal makes Russia Uneasy: Nuclear Program offers Benefits, but also Risks .” *The Atlanta Journal-Constitution*. http://www.ajc.com/news/content/news/0603/15russiairan.html. [7 August 2004].

Sokolski, Henry D. *Best of Intentions: America's Campaign against Strategic Weapons Proliferation*. Westport, Connecticut: Praeger, 2001.

Sorensen, Theodore C. *Kennedy*. New York: Harper & Row, 1965.

Strode, Rebecca. “Soviet Policy Toward a Nuclear Test Ban: 1958-1963.” in *The Other Side of the Table: The Soviet Approach to Arms Control*. Edited by Michael Mandelbaum. New York, London: Council on Foreign Relations Press, 1990.

Tavernise, Sabrina. “Oil Prize, Past and Present, Ties Russia to Iraq .” *Global Policy Forum*. http://www.globalpolicy.org/security/oil/2002/1017russia.htm. [9 August 2004].

Tehran Times Political Desk, “Text of EU Draft Resolution on Iran’s Nuclear Program,” *Tehrantimes.com*, http://www.tehrantimes.com/Description.asp?Da=9/15/2004&Cat=2&Num=005, [14 September 2004].

Timerbaev, Roland. *Russia and Nuclear Nonproliferation*. Moscow: Nauka, 1999.

Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement 1945-1963*. Princeton, New Jersey: Princeton University Press, 1999.

Truman, Harry S. *Years of Trial and Hope*. New York: Signet, 1965.

Tutwiller, Margaret. *Russian Sale of Rocket Engine to India*. Washington, D.C.: U.S. Department of State, Office of the Assistant Secretary of State for Public Affairs, May 11, 1992.

U.S. Department of Energy. “MPC&A Strategic Plan.” *Carnegie Endowment for International Peace*. http://www.ceip.org/files/projects/npp/pdf/mpcaplan.pdf. [26 August 2004].

U.S. Department of State. *A Report on the International Control of Atomic Energy*. Washington D.C.: U.S. Government Printing Office, 1946.

Ulam, Adam B. *Expansion and Coexistence: Soviet Foreign Policy, 1917-1973*, 2d ed. New York: Holt, Rinehart and Winston, Inc., 1974.

Walsh, Jim. *Russian and American Nonproliferation Policy: Success, Failure, and the Role of Cooperation*. MTA Occasional Paper 2004-01, Kennedy School of Government, Harvard University, June 2004.

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